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OPTIMIZATION OF FINE COAL DEWATERING CIRCUIT (DISC FILTERS) VICTORIA JUNCTION PREPARATION PLANT (DATA REPORT)

D.A. Young, G.R. Corbett and K.A. Hashmi

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OPTIMIZATION OF FINE COAL DEWATERING CIRCUIT (DISC FILTERS) VICTORIA JUNCTION PREPARATION PLANT (DATA REPORT)

by

D.A. Young*, G.R. Corbett* and K.A. Hashmi**

ABSTRACT

This report presents the data from Phase II of a collaborative program between the Fuel Processing Laboratory, CRL/CANMET and the Victoria Junction (V.J.) Coal Preparation Plant, Cape Breton Development Corporation (CBDC).

The overall objective of this program is to generate engineering and operational data that will help improve performance and productivity of the V.J. Plant's disc filters.

Phase I of this project focussed on recording operational data and collecting samples for performance evaluation of the V.J. Plant's disc filters (disc filter B was selected for this study). Phase II concentrated on pilot scale testing, utilizing CANMET's mobile dewatering Unit 1 to optimize machine variables (vacuum, retention time and filter media) and evaluate the effectiveness of dewatering agents. This report contains both data and figures describing these experiments. Phase III will be the implementation of the optimal machine variables, the selection of filter media and the use of dewatering agents at the V.J. Coal Preparation Plant.

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OPTIMISATION DU CIRCUIT DE DÉNOYAGE DU CHARBON FIN (FILTRES À DISQUES) INSTALLATION DE PRÉPARATION DE VICTORIA JUNCTION (ÉTAT MÉCANOGRAPHIQUE)

par

D.A. Young*, G.R. Corbett* et K.A. Hashmi**

RÉSUMÉ

Le présent rapport comprend les données de la Phase II d'un programme réalisé conjointement par le Laboratoire de traitement des combustibles fossiles du Laboratoire de recherche sur le charbon (LRC) de CANMET et l'Installation de préparation de Victoria Junction, propriété de la Société de développement du Cap-Breton (SDCB).

Dans l'ensemble, le programme a pour objectif la production de données techniques et opérationnelles en vue d'améliorer la performance et la productivité des filtres à disques à l'installation de Victoria Junction.

La phase I du projet était axée sur l'enregistrement des données opérationnelles et la collecte d'échantillons en vue d'évaluer la performance des filtres à disques de l'installation de Victoria Junction (le disque B a été sélectionné aux fins de cette étude). Dans la phase II, les travaux comprenaient surtout des essais à échelle pilote réalisés au moyen de l'unité mobile de dénoyage n° 1 de CANMET. Ils portaient sur l'optimisation des variables de traitement (le vide, le temps de rétention, et les dispositifs de filtrage) et l'évaluation de l'efficacité des agents de dénoyage. Les données et les figures relatives à ces essais sont présentées dans le rapport. Dans la phase III, les travaux seront axés sur l'intégration des variables de traitement optimales, la sélection du filtre et l'utilisation d'agents de dénoyage à l'installation de préparation de charbon de Victoria Junction.

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INTRODUCTION

A collaborative test program was developed between the Fuel Processing Laboratory of CRL/CANMET and CBDC to conduct field testing at their Victoria Junction Coal Preparation Plant. The purpose of this program was to generate engineering and operational data that will help in improving the performance of their vacuum disc filters.

Efficient dewatering of fine clean coal is one of the highest priorities of a coal preparation engineer, whether required for handling of material, environmental constraints or meeting product specifications.

The experimental plan for Phase II was broken down into three parts:

1) the optimization of machine variables (vacuum and disc retention time).
2) the optimization of machine variables and comparison of two filter types (EIMCO and NITEX).
3) the utilization of chemical reagents to further improve the product quality.

The following sections briefly describe the test sampling and the experimental designs followed for each of the three parts noted above. It also make reference to the presentation of data in Appendices A, B and C.

TEST SAMPLING

When the fine coal feed was stabilized from the V.J. Plant, the following six routines were carried out:

1) sampling of filter cake from the filter discs to determine both cake thickness and moisture content.
2) sampling of cake discharge to determine cake discharge rate.
3) determination of feed rate.
4) determination of filtrate rate.
5) sampling of feed for the determination of % solids.
6) sampling of filtrate for the determination of % solids.

Note: a) The results of the data gathered from Routines 2-6 is referred to as process data in Appendices A, B and C (see Tables A5, B5, C6 for combined results).

b) Test time was dictated by whether there was a steady feed delivery to the trailer from the main plant and was usually beyond operator control.

Routine 1 included the collection of 2 or 3 samples of filter cake from each of the trailer's two disc filters. Cake thickness was measured using a ruler and samples were placed in preweighed foil sample pans for moisture determination. Cake thickness, forming and drying vacuum, and sample weights were all recorded.

Routine 2 was carried out at 10-minute intervals in Parts 1 and 2 and at 5-minute intervals in Part 3. Three tared, galvanized metal pans were used to collect the cake discharge from the two filter discs. The feed and filtrate rates were determined by diverting the respective streams into a tared 25 L pail. The weight of sample over a measured period of time determined the respective flows. The rate of discharge was calculated from the weight of the filter cake discharged and the disc retention time. Routines 3 and 4 were carried out during the same time interval as Routine 2.

Routines 5 and 6 were carried out during the same time interval as Routine 2. Preweighed foil pans or plastic bottles were used to collect a diverted portion of the disc's filter feed and filtrate streams. Samples were weighed, placed into holding pans and dried to 0% moisture at 104°C.

EXPERIMENTAL DESIGN

TEST SCHEDULE - PART 1

Table 1 presents the experimental design for Part 1. The purpose of this design was to isolate a series of machine variables to determine the effect of these variables on the performance of the disc filtering process. Two groups of tests using two filter types (EIMCO and NITEX) identify the optimum vacuum and retention time for each type respectively. The letter "A" followed by a number, located in Table 1, labels a test, e.g. A1. This label indicates that test A1 was carried out using a vacuum setting of 20" Hg, a disc retention time of 0.24 and an EIMCO filter media. All references to experimental designs and labels are of this structure and format.

Note, only the tests using the EIMCO filter media were completed in Part 1 due to unstable feed and water deliveries to the trailer and the need to place a slurry pump in the system to contain and return processed feed back to the main plant.

Table 1 contains the test labels A1 to A12 for Part 1. These labels describe both the order and the machine variables used for each test. Table A1 (Appendix A) provides an expanded version of Table 1 and expresses the average results of each test in Part 1. Appendix A contains a formal breakdown of all sample data including tables of percent moisture, cake thickness, process and combined data results. Figures A1 to A22 (Appendix A) were created from these tables and will be utilized in determining the optimum machine variables.

TEST SCHEDULE - PART 2

Table 2 describes the experimental design for Part 2. In this design it was decided to fit one of the trailer's two disc filters with an EIMCO filter media and the other with NITEX. This had two purposes:

1) to directly compare the two filter medias under similar operating conditions, i.e. cake thickness, filter blinding, etc.

2) to identify the optimum machine variables under these conditions and to compare them with values from Part 1. The design included an intermediate vacuum setting of 15" Hg.

In Table 2, test labels A13 (a and b) to A18 (a and b) describe the order and machine variables used for each test. Note, because of extreme variations in feed (e.g. particle size) delivered to the trailer, due to process changes occuring within the main plant, not all test conditions could be used. However, enough information and data was gathered from successful tests to make an evaluation between the filter media types and to identify optimum machine variables. Table B1 (Appendix B) provides an expanded version of Table 2 and includes the final, successful test averages for Part 2. Appendix B contains a formal breakdown of all Part 2 sample data including tables of percent moisture, cake thickness, process data and combined data results. Figures B1 to B16 (Appendix B) were created from these tables and will be utilized in the determination of optimum machine variables.

TEST SCHEDULE - PART 3

Part 3 of testing utilized flocculating reagents to improve the performance of the coal fines dewatering process. In theory, flocculants can reduce the water content and subsequently increase the recovery of suspended solids during the filtration process. Moreover, they conglomerate smaller particles and prevent them from lodging into the filter material (blinding).

In Phase I, Research and Productivity Council's (RPC) bench scale testing identified a host of chemical reagents from which three liquid anionic types were selected for pilot plant testing: Alchem 87056, Pol-Y-Z 692 and Alchem 1C34. All three reduced filter cake moisture and increased the recovery of solids during bench scale testing.

Table 3 provides the experimental plan for Part 3. In this plan, the optimum dosages proposed by RPC testing were used as a basis for testing. In each of the three cases, the dosage in the feed is varied by 2/3, 1, 1 1/3, of the calculated optimum dosage. This was done to identify the best operating range of the flocculant. Machine variables of vacuum and of disc retention time were set at 20" Hg and 0.73 (RPM) respectively as determined from Parts 1 and 2.

Early tests, using dosages near the optimum range, were unsuccessful due to filter cake failure. This cake failure may be attributed to a higher moisture content where the cake cracks, a loss of vacuum occurs and results in premature cake discharge. Therefore, a revised plan was proposed. Table 4 describes the revised plan used to test the three flocculants. In this plan, flocculant dosages were varied through a low to a high range, with a high range being defined as the dosage at which cake failure occurred. From this range, the best flocculant dosage could be determined, and a final test at this dosage performed to more accurately describe previous results.

Table C1 (Appendix C) provides the final test averages for Part 3. Note, only Alchem 87056 had a final test result. It was decided at this point that no further testing be conducted since all tests with flocculants had shown an average increase in overall cake moisture content. Appendix C contains a formal breakdown of all sample data including tables of percent moisture, cake thickness, process data and combined data results. Figures C1 to C52 (Appendix C) were created from these tables.

CONCLUSIONS

Phase II of this project was conducted by the staff of CBCRL and CRL/Devon in cooperation with CBDC's V.J. Coal Preparation Plant staff. Preliminary analysis of the data contained in this report has already translated into a substantial cost saving by the V.J. Plant by optimizing and improving the operation of their fine coal dewatering circuit. A detailed analysis of this data in conjunction with Phases I and III will be the subject of a later report.

Table 1 - A1 to A12 actual test ID's

Retention Time (T) (Disc Speed)	Filter Media (F1) (EIMCO)		Filter Media (F2) (NITEX)	
	Vacuum (V1)	Vacuum (V2)	Vacuum (V1)	Vacuum (V2)
R1	A2, A10	A3, A11	-	-
R2	A6	A8	-	-
R3	A5	A7	-	-
R4	A1, A9	A4, A12	-	-

NOTE:

Filter Media (F)

F1 - EIMCO (suggested by the supplier of the disc filter).

F2 - recommended by CANMET staff, based on results from similar test work done elsewhere).

Vacuum Settings

V1 - 20" of Hg (suggested by the supplier of the disc filter).

V2 - 10" of Hg (used elsewhere in similar operations).

Retention Time

R1 - 0.73 RPM (suggested by the supplier of the disc filter).

R2 - 0.55 RPM (used elsewhere in similar operations).

R3 - 0.38 RPM (50% of R1 - approximate).

R4 - 0.24 RPM (50% of R2 - approximate).

"-" uncompleted

Table 2 - Experimental design for the pilot scale testing

Retention Time (Disc Speed) (RPM)	Vacuum (Forming and Drying)					
	Vacuum (20)		Vacuum (15)		Vacuum (10)	
	EIMCO (F1)	NITEX (F2)	EIMCO (F1)	NITEX (F2)	EIMCO (F1)	NITEX (F2)
R1	A13a A18a	A13b A18b	A14a A17a	A14b A17b	A16a	A16b
R2	A15a	A15b	-	-	-	-
R3	-	-	-	-	-	-
R4	-	-	-	-	-	-

NOTE: Suffix 'a' denotes EMICO filter media; 'b' denotes NITEX filter media

Table 3 - Proposed experimental design No. 1 for flocculants evaluation

Filter Media	Flocculant - A			Flocculant - B			Flocculant - C		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
EIMCO									

NOTE:

Flocculant - A = Alchem 87056

Flocculant - B = Pol-Y-Z 692

Flocculant - C = Alchem 1C34

Flocculant Dosages: Low = 2/3 of medium

Medium = same as determined by the RPC study

High = 1 1/3 of medium

Filter Media: EIMCO = used in the washery filters

NITEX = proposed filter media

Table 4 - Revised option 1

Flocculant	F1						F2						F3					
Dosages	1	2	3	4	5	F	1	2	3	4	5	F	1	2	3	4	5	F
Filter Media (EIMCO)	A19 A19	A19 F2	A19 F3	A19 F4	A19 F5	A23 F1	A20 F1	A20 F2	A20 F3	A20 F4	A20 F5	-	A21 F1	A21 F2	A21 F3	A21 F4	f	-

Flocculant F1, F2 and F3 - as determined by RPC bench scale testing.

Dosages - a range of five dosages up to point of vacuum failure.

F - final test

F1 - Alchem 87056
F2 - Pol-Y-Z 692
F3 - Alchem 1C34

APPENDIX A

Tables A1 to A5

Figures A1 to A22

EIMCO FILTER MEDIA

TARGET VACUUMS:	FORMING	20		10	
	DRYING	20		10	
RETENTION TIME (RPM)					
0.73	Test ID	A2	A10	A3	A11
	Feed Solids (%)	23.97	30.47	26.03	27.69
	Filtrate Solids (%)	0.47	0.89	0.79	1.02
	Clcd.Floc Dosage (g/Tonne)	0.00	0.00	0.00	0.00
	Cake Solids (%)	80.09	81.08	78.27	76.08
	Cake Thickness (cm)	2.04	1.70	1.60	2.49
	Discharge Qc (kg/min)	30.37	40.05	25.53	39.05
	Qf (kg/min)	90.60	107.34	85.80	110.23
	Qk (kg/min)	62.16	67.82	57.65	71.18
	Recovery (%)	98.00	98.14	98.64	97.67
	Forming Vaccuum ("Hg)	20.20	19.92	7.92	9.54
	Drying Vaccuum ("Hg)	19.80	20.54	10.31	10.00
0.55	Test ID	A6		A8	
	Feed Solids (%)	24.59		22.37	
	Filtrate Solids (%)	0.86		0.81	
	Clcd.Floc Dosage (g/Tonne)	0.00		0.00	
	Cake Solids (%)	81.17		76.54	
	Cake Thickness (cm)	2.25		1.46	
	Discharge Qc (kg/min)	28.06		20.41	
	Qf (kg/min)	92.12		78.42	
	Qk (kg/min)	64.57		58.01	
	Recovery (%)	97.56		97.18	
	Forming Vaccuum ("Hg)	19.62		8.50	
	Drying Vaccuum ("Hg)	19.69		10.00	

Table A1 - Average results of tests A1 to A12, Part 1

EIMCO FILTER MEDIA

TARGET VACUUMS:	FORMING	20		10	
	DRYING	20		10	
RETENTION TIME (RPM)					
0.38	Test ID	A5		A7	
	Feed Solids (%)	32.49		27.83	
	Filtrate Solids (%)	0.89		0.73	
	Clcd.Floc Dosage (g/Tonne)	0.00		0.00	
	Cake Solids (%)	80.96		78.95	
	Cake Thickness (cm)	3.97		2.45	
	Discharge Qc (kg/min)	31.67		19.51	
	Qf (kg/min)	90.96		56.50	
	Qk (kg/min)	55.98		36.99	
	Recovery (%)	98.30		98.27	
	Forming Vaccuum ("Hg)	20.27		8.08	
	Drying Vaccuum ("Hg)	20.27		10.25	
0.24	Test ID	A1	A9	A4	A12
	Feed Solids (%)	21.30	24.74	31.76	30.03
	Filtrate Solids (%)	0.87	0.61	0.82	0.57
	Clcd.Floc Dosage (g/Tonne)	0.00	0.00	0.00	0.00
	Cake Solids (%)	79.60	80.86	79.47	78.72
	Cake Thickness (cm)	3.89	3.31	3.28	4.21
	Discharge Qc (kg/min)	26.92	21.61	15.08	29.26
	Qf (kg/min)	112.60	75.38	38.46	63.90
	Qk (kg/min)	85.20	53.77	23.38	39.16
	Recovery (%)	96.89	98.16	98.55	99.36
	Forming Vaccuum ("Hg)	20.60	21.38	11.18	13.85
	Drying Vaccuum ("Hg)	19.60	19.85	10.82	11.54

Table A1 Continued

Test ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
TEST AVERAGES												
A1	21.29	0.87	0.00	79.60	3.89	26.92	112.60	85.20	96.90	20.60	19.60	0.24
A2	23.97	0.47	0.00	80.09	2.04	30.37	90.60	62.16	98.00	20.20	19.80	0.73
A3	26.03	0.79	0.00	78.27	1.60	25.53	85.80	57.65	98.64	7.92	10.31	0.73
A4	31.76	0.82	0.00	79.47	3.28	15.08	38.46	23.38	98.55	11.18	10.82	0.24
A5	32.49	0.89	0.00	80.96	3.97	31.67	90.96	55.98	98.30	20.27	20.27	0.38
A6	24.59	0.86	0.00	81.17	2.25	28.06	92.12	64.57	97.56	19.62	19.69	0.55
A7	27.83	0.73	0.00	78.95	2.45	19.51	56.50	36.99	98.27	8.08	10.25	0.38
A8	22.37	0.81	0.00	76.54	1.46	20.41	78.42	58.01	97.18	8.50	10.00	0.55
A9	24.74	0.61	0.00	80.86	3.31	21.61	75.38	53.77	98.16	21.38	19.85	0.24
A10	30.47	0.89	0.00	81.08	1.70	40.05	107.34	67.82	98.14	19.92	20.54	0.73
A11	27.69	1.02	0.00	76.08	2.49	39.05	110.23	71.18	97.67	9.54	10.00	0.73
A12	30.03	0.57	0.00	78.72	4.21	29.26	63.90	39.16	99.36	13.85	11.54	0.24
TEST STANDARD DEVIATIONS												
A1	2.84	0.10	0.00	1.70	1.06	1.41	15.60	16.10	0.58	1.85	1.96	0.00
A2	3.62	0.37	0.00	1.15	0.32	4.09	9.36	5.83	0.45	2.18	1.99	0.00
A3	1.78	0.14	0.00	3.17	0.18	5.23	13.50	11.02	0.90	0.73	0.82	0.00
A4	1.02	0.13	0.00	1.21	0.67	2.38	5.55	3.31	0.24	2.62	1.27	0.00
A5	1.60	0.12	0.00	0.63	0.46	6.28	19.15	13.03	0.34	1.71	1.29	0.00
A6	1.84	0.10	0.00	0.59	0.40	8.74	28.65	18.95	0.40	1.73	1.59	0.00
A7	2.71	0.04	0.00	1.43	0.33	2.12	7.28	6.00	0.28	0.86	1.30	0.00
A8	4.97	0.14	0.00	2.87	0.31	7.83	33.09	27.16	0.76	1.38	1.35	0.00
A9	4.39	0.27	0.00	1.36	0.90	2.28	16.96	15.75	0.87	2.27	0.53	0.00
A10	0.85	0.07	0.00	0.81	0.24	4.43	13.28	8.97	0.22	1.44	0.93	0.00
A11	1.88	0.33	0.00	1.84	0.60	5.49	20.43	15.58	0.63	0.93	0.78	0.00
A12	1.62	0.27	0.00	1.70	1.13	5.28	12.81	6.97	0.64	1.17	1.55	0.00

Table A2 - Test averages and standard deviations
for tests A1 to A12, Part 1

Table A3 - Filter cake moistures and cake thickness for tests A1 to A12, Part 1

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A1	0	1	27.4		72.6		2.2	
A1	0	2	29.1		70.9		1.8	
A1	0	3	27.7	28.1	72.3	71.9	1.4	1.8
A1	6	4	23.4		76.6		2.5	
A1	6	5	23.8		76.2		3.1	
A1	6	6	24.4	23.9	75.6	76.1	3.2	2.9
A1	12	7	21.4		78.6		4.0	
A1	12	8	21.6		78.4		4.0	
A1	12	9	21.5	21.5	78.5	78.5	4.5	4.2
A1	19	10	21.6		78.4		4.0	
A1	19	11	21.1		78.9		3.5	
A1	19	12	22.0	21.6	78.0	78.4	4.0	3.8
A1	25	13	21.7		78.3		3.2	
A1	25	14	21.1		78.9		3.0	
A1	25	15	21.0	21.3	79.0	78.7	3.2	3.1
A1	37	16	24.3		75.7		4.0	
A1	37	17	17.4		82.6		4.5	
A1	37	18	29.5	23.7	70.5	76.3	4.5	4.3
A1	45	19	24.6		75.4		7.0	
A1	45	20	21.4		78.6		5.5	
A1	45	21	22.3	22.8	77.7	77.2	5.5	6.0
A1	51	22	21.5		78.5		3.7	
A1	51	23	20.8		79.2		4.0	
A1	51	24	13.1	18.4	86.9	81.6	3.9	3.9
A1	56	25	21.9		78.1		4.5	
A1	56	26	24.1		75.9		3.0	
A1	56	27	22.6	22.9	77.4	77.1	5.0	4.2

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A1	60	28	23.1		76.9		4.0	
A1	60	29	20.5		79.5		4.9	
A1	60	30	21.7	21.8	78.3	78.2	5.0	4.6
A2	0	1	17.6		82.4		2.0	
A2	0	2	19.7		80.3		2.0	
A2	0	3	19.7	19.0	80.3	81.0	1.8	1.9
A2	5	4	20.8		79.2		1.4	
A2	5	5	20.9		79.1		1.4	
A2	5	6	19.1	20.3	80.9	79.7	1.0	1.3
A2	15	7	20.2		79.8			
A2	15	8	17.3		82.7		2.5	
A2	15	9	21.8	19.8	78.2	80.2	2.0	2.3
A2	25	10	17.7		82.3		2.5	
A2	25	11	17.9		82.1		2.5	
A2	25	12	18.5	18.0	81.5	82.0	2.5	2.5
A2	35	13	19.3		80.7		2.0	
A2	35	14	19.5		80.5		2.5	
A2	35	15	17.5	18.8	82.5	81.2	2.0	2.2
A2	40	16	20.3		79.7		2.3	
A2	40	17	20.3		79.7		2.5	
A2	40	18	20.4	20.4	79.6	79.6	2.3	2.4
A2	45	19	22.6		77.4		2.2	
A2	45	20	22.3		77.7		1.8	
A2	45	21	22.3	22.4	77.7	77.6	1.8	1.9
A2	50	22	20.0		80.0		2.0	
A2	50	23	20.4		79.6		2.0	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A2	50	24	19.6	20.0	80.4	80.0	2.0	2.0
A2	60	25	21.4		78.6		2.0	
A2	60	26	20.4		79.6		2.0	
A2	60	27	20.7	20.8	79.3	79.2	2.0	2.0
A2	65	28	19.4		80.6		2.0	
A2	65	29	20.1		79.9		2.0	
A2	65	30	19.6	19.7	80.4	80.3	2.0	2.0
A3	0	31	21.4		78.6		1.5	
A3	0	32	21.4		78.6		1.5	
A3	0	33	21.8	21.6	78.2	78.4	1.5	1.5
A3	5	34	20.4		79.6		2.0	
A3	5	35	52.3		47.7		2.0	
A3	5	36	19.8	30.8	80.2	69.2	1.5	1.8
A3	10	37	18.5		81.5		1.7	
A3	10	38	21.9		78.1		1.5	
A3	10	39	21.8	20.8	78.2	79.2	2.0	1.7
A3	15	40	20.4		79.6		1.8	
A3	15	41	18.5		81.5		1.8	
A3	15	42	18.0	19.0	82.0	81.0	1.8	1.8
A3	20	43	20.6		79.4		1.7	
A3	20	44	21.5		78.5		1.5	
A3	20	45	20.0	20.7	80.0	79.3	1.8	1.7
A3	25	46	23.0		77.0		2.0	
A3	25	47	24.6		75.4		1.5	
A3	25	48	21.6	23.1	78.4	76.9	1.5	1.7
A3	30	49	20.9		79.1		1.5	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A3	30	50	19.2		80.8		1.5	
A3	30	51	21.0	20.4	79.0	79.6	1.5	1.5
A3	35	52	18.1		81.9		2.0	
A3	35	53	17.5		82.5		2.0	
A3	35	54	20.6	18.7	79.4	81.3	1.5	1.8
A3	40	55	21.0		79.0		2.0	
A3	40	56	16.4		83.6		1.7	
A3	40	57	15.7	17.7	84.3	82.3	1.5	1.7
A3	45	58	21.9		78.1		1.5	
A3	45	59	20.2		79.8		1.3	
A3	45	60	20.1	20.7	79.9	79.3	1.5	1.4
A3	50	61	24.3		75.7		1.1	
A3	50	62	23.5		76.5		1.3	
A3	50	63	22.4	23.4	77.6	76.6	1.5	1.3
A3	55	64	16.7		83.3		1.4	
A3	55	65	34.2		65.8		1.2	
A3	55	66	21.5	24.2	78.5	75.8	2.0	1.5
A3	60	67	20.9		79.1		1.4	
A3	60	68	21.3		78.7		1.5	
A3	60	69	22.2	21.5	77.8	78.5	1.0	1.3
A4	0	1	21.6		78.4		2.0	
A4	0	2	22.1		77.9		2.0	
A4	0	3	21.4	21.7	78.6	78.3	1.8	1.9
A4	5	4	23.3		76.7		2.0	
A4	5	5	14.6		85.4		2.7	
A4	5	7	23.4	20.4	76.6	79.6	2.7	2.5

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A4	10	8	21.4		78.6		4.0	
A4	10	9	23.0		77.0		4.0	
A4	10	10	21.7	22.0	78.3	78.0	4.0	4.0
A4	15	11	22.9		77.1		3.0	
A4	15	12	22.8		77.2		3.0	
A4	15	13	21.5	22.4	78.5	77.6	3.5	3.2
A4	20	14	20.2		79.8		4.0	
A4	20	15	20.3		79.7		4.0	
A4	20	31	20.3	20.3	79.7	79.7	4.0	4.0
A4	25	32	18.4		81.6		3.0	
A4	25	33	19.7		80.3		3.0	
A4	25	34	18.8	19.0	81.2	81.0	2.5	2.8
A4	30	35	22.4		77.6		3.0	
A4	30	36	21.8		78.2		2.5	
A4	30	37	20.3	21.5	79.7	78.5	2.5	2.7
A4	35	38	21.5		78.5		3.5	
A4	35	39	20.8		79.2		4.0	
A4	35	40	19.6	20.6	80.4	79.4	3.5	3.7
A4	45	41	18.2		81.8		4.0	
A4	45	42	18.4		81.6		4.0	
A4	45	43	18.6	18.4	81.4	81.6	3.5	3.8
A4	50	44	20.3		79.7		3.5	
A4	50	45	20.1		79.9		3.5	
A4	50	46	19.7	20.0	80.3	80.0	4.0	3.7
A4	60	47	19.7		80.3		4.0	
A4	60	48	19.0		81.0		4.0	
A4	60	49	19.9	19.5	80.1	80.5	3.5	3.8

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A5	0	50	18.9		81.1		2.7	
A5	0	51	19.4		80.6		4.5	
A5	0	53	18.4	18.9	81.6	81.1	4.5	3.9
A5	10	52	17.8		82.2		5.0	
A5	10	54	18.6	18.2	81.4	81.8	4.6	4.8
A5	15	56	18.7		81.3		3.5	
A5	15	57	19.0	18.9	81.0	81.1	3.0	3.3
A5	25	58	20.6		79.4		4.5	
A5	25	59	20.0	20.3	80.0	79.7	4.5	4.5
A5	30	60	20.0		80.0		4.5	
A5	30	61	18.4		81.6		4.0	
A5	30	62	19.3	19.2	80.7	80.8	4.5	4.3
A5	40	1	18.1		81.9		4.5	
A5	40	2	18.7	18.4	81.3	81.6	4.0	4.3
A5	45	1	19.2		80.8		4.0	
A5	45	2	19.0	19.1	81.0	80.9	4.0	4.0
A5	50	1	18.3		81.7		4.0	
A5	50	2	18.6	18.4	81.4	81.6	3.5	3.8
A5	55	3	19.9		80.1		4.0	
A5	55	4	19.3		80.7		3.5	
A5	55	5	19.2	19.5	80.8	80.5	4.0	3.8
A5	60	6	18.3		81.7		4.0	
A5	60	7	18.8		81.2		3.5	
A5	60	8	18.6	18.5	81.4	81.5	4.0	3.8
A5	65	1	19.3		80.7		3.0	
A5	65	2	20.7	20.0	79.3	80.0	3.5	3.3

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A6	0	1	19.5		80.5		1.5	
A6	0	2	20.4		79.6		1.0	
A6	0	3	20.0	19.9	80.0	80.1	2.0	1.5
A6	5	4	17.3		82.7		1.5	
A6	5	5	17.7		82.3		2.0	
A6	5	7	18.4	17.8	81.6	82.2	2.0	1.8
A6	10	8	19.3		80.7		2.0	
A6	10	9	18.0		82.0		2.3	
A6	10	10	19.6	19.0	80.4	81.0	2.5	2.3
A6	15	11	19.8		80.2		2.0	
A6	15	12	19.6		80.4		2.0	
A6	15	13	20.1	19.8	79.9	80.2	1.3	1.8
A6	20	14	17.9		82.1		2.5	
A6	20	15	18.7		81.3		2.5	
A6	20	31	18.0	18.2	82.0	81.8	2.0	2.3
A6	25	32	18.1		81.9		2.5	
A6	25	33	18.4		81.6		2.5	
A6	25	34	18.7	18.4	81.3	81.6	2.0	2.3
A6	30	35	19.1		80.9		1.8	
A6	30	36	19.4		80.6		2.5	
A6	30	37	19.1	19.2	80.9	80.8	2.7	2.3
A6	35	38	18.5		81.5		2.5	
A6	35	39	18.0		82.0		2.2	
A6	35	40	19.5	18.7	80.5	81.3	2.2	2.3
A6	40	41	18.4		81.6		2.2	
A6	40	42	19.9		80.1		1.5	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A6	40	43	18.9	19.1	81.1	80.9	2.2	2.0
A6	45	44	18.6		81.4		2.2	
A6	45	45	19.9		80.1		2.2	
A6	45	46	18.0	18.8	82.0	81.2	2.2	2.2
A6	50	47	18.8		81.2		2.7	
A6	50	48	17.8		82.2		2.7	
A6	50	49	18.5	18.4	81.5	81.6	3.0	2.8
A6	55	50	17.2		82.8		3.0	
A6	55	51	19.8		80.2		3.2	
A6	55	52	19.0	18.7	81.0	81.3	3.0	3.1
A6	60	53	18.9		81.1		2.5	
A6	60	54	18.9		81.1		2.5	
A6	60	56	19.0	18.9	81.0	81.1	2.5	2.5
A7	0	1	19.5		80.5		3.0	
A7	0	2	19.9		80.1		2.5	
A7	0	3	21.2	20.2	78.8	79.8	2.5	2.7
A7	10	4	18.3		81.7		2.5	
A7	10	5	18.2		81.8		2.5	
A7	10	7	19.5	18.6	80.5	81.4	3.0	2.7
A7	15	8	20.4		79.6		2.5	
A7	15	9	20.5		79.5		2.5	
A7	15	10	20.6	20.5	79.4	79.5	3.0	2.7
A7	20	11	20.2		79.8		3.0	
A7	20	12	19.1		80.9		2.0	
A7	20	13	19.6	19.7	80.4	80.3	2.5	2.5
A7	25	14	20.2		79.8		3.0	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A7	25	15	21.8		78.2		3.0	
A7	25	16	20.9	21.0	79.1	79.0	2.5	2.8
A7	30	17	21.9		78.1		2.0	
A7	30	19	20.8		79.2		2.5	
A7	30	20	21.2	21.3	78.8	78.7	2.0	2.2
A7	35	21	22.8		77.2		2.5	
A7	35	23	20.1		79.9		2.5	
A7	35	27	23.2	22.0	76.8	78.0	2.0	2.3
A7	40	31	23.4		76.6		2.0	
A7	40	32	19.5		80.5		2.0	
A7	40	33	23.0	21.9	77.0	78.1	2.5	2.2
A7	45	34	22.4		77.6		3.0	
A7	45	35	24.4		75.6		3.0	
A7	45	36	14.8	20.5	85.2	79.5	3.2	3.1
A7	50	37	25.3		74.7		2.0	
A7	50	38	24.6		75.4		2.5	
A7	50	39	23.7	24.6	76.3	75.4	2.5	2.3
A7	55	40	20.4		79.6		2.0	
A7	55	41	19.9		80.1		2.0	
A7	55	42	20.9	20.4	79.1	79.6	2.5	2.2
A7	60	43	23.2		76.8		2.0	
A7	60	44	20.5		79.5		2.0	
A7	60	45	22.0	21.9	78.0	78.1	1.5	1.8
A8	0	1	22.0		78.0		1.8	
A8	0	2	21.0	21.5	79.0	78.5	1.5	1.7
A8	10	3	22.7		77.3		1.5	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A8	10	4	22.4	22.6	77.6	77.4	1.5	1.5
A8	15	5	22.0		78.0		1.5	
A8	15	7	21.7	21.8	78.3	78.2	1.5	1.5
A8	20	8	22.8		77.2		1.5	
A8	20	9	21.1	21.9	78.9	78.1	2.5	2.0
A8	25	10	23.3		76.7		1.0	
A8	25	11	22.0	22.6	78.0	77.4	1.0	1.0
A8	30	12	25.2		74.8		1.8	
A8	30	13	23.3	24.2	76.7	75.8	1.5	1.7
A8	35	14	26.6		73.4		1.0	
A8	35	15	26.4	26.5	73.6	73.5	1.0	1.0
A8	40	16	28.0		72.0		1.3	
A8	40	17	26.6	27.3	73.4	72.7	1.5	1.4
A8	45	18	30.4		69.6		1.0	
A8	45	19	29.8	30.1	70.2	69.9	1.0	1.0
A8	50	20	21.7		78.3		1.5	
A8	50	21	20.5	21.1	79.5	78.9	1.3	1.4
A8	55	23	19.6		80.4		1.5	
A8	55	27	20.3	19.9	79.7	80.1	1.8	1.7
A8	60	31	21.9		78.1		2.0	
A8	60	32	21.9	21.9	78.1	78.1	1.5	1.8
A9	0	34	21.5		78.5		2.0	
A9	0	35	20.0	20.7	80.0	79.3	2.0	2.0
A9	5	36	22.7		77.3		2.5	
A9	5	37	22.5	22.6	77.5	77.4	2.5	2.5
A9	10	38	19.3		80.7		2.0	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A9	10	39	19.8	19.6	80.2	80.4	2.0	2.0
A9	15	40	19.6		80.4		3.5	
A9	15	41	19.8	19.7	80.2	80.3	3.5	3.5
A9	20	42	18.9		81.1		4.0	
A9	20	43	18.7	18.8	81.3	81.2	4.0	4.0
A9	25	44	18.9		81.1		3.5	
A9	25	45	19.4	19.1	80.6	80.9	5.0	4.3
A9	30	46	18.3		81.7		3.0	
A9	30	47	18.6	18.5	81.4	81.5	3.0	3.0
A9	35	48	18.5		81.5		2.5	
A9	35	49	19.9	19.2	80.1	80.8	3.0	2.8
A9	40	50	19.3		80.7		3.0	
A9	40	51	18.3	18.8	81.7	81.2	3.0	3.0
A9	45	52	17.3		82.7		2.5	
A9	45	53	18.3	17.8	81.7	82.2	3.0	2.8
A9	50	54	16.7		83.3		4.0	
A9	50	56	16.8	16.8	83.2	83.2	4.0	4.0
A9	55	55	18.5		81.5		5.0	
A9	55	57	18.4	18.4	81.6	81.6	5.0	5.0
A9	60	60	18.9	18.7	81.1	81.3	4.0	
A9	60	61	18.6	18.8	81.4	81.2	4.5	4.3
A10	0	1	20.0		80.0		1.8	
A10	0	2	20.9	20.5	79.1	79.5	1.2	1.5
A10	5	3	18.6		81.4		1.5	
A10	5	4	19.7	19.2	80.3	80.8	2.0	1.8
A10	10	5	18.0		82.0		1.5	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A10	10	6	17.5	17.7	82.5	82.3	1.3	1.4
A10	15	7	18.7		81.3		1.8	
A10	15	8	18.4	18.5	81.6	81.5	2.2	2.0
A10	20	9	18.2		81.8		1.8	
A10	20	10	18.9	18.5	81.1	81.5	2.0	1.9
A10	25	11	18.1		81.9		2.0	
A10	25	12	17.6	17.9	82.4	82.1	1.6	1.8
A10	30	13	17.8		82.2		1.8	
A10	30	14	18.5	18.2	81.5	81.8	2.1	2.0
A10	35	15	18.2		81.8		1.0	
A10	35	16	21.9	20.1	78.1	79.9	1.5	1.3
A10	40	17	18.5		81.5		1.9	
A10	40	18	18.7	18.6	81.3	81.4	1.3	1.6
A10	45	19	19.0		81.0		2.2	
A10	45	20	18.3	18.7	81.7	81.3	1.9	2.1
A10	50	21	18.1		81.9		1.4	
A10	50	22	21.8	20.0	78.2	80.0	1.4	1.4
A10	55	23	18.9		81.1		1.4	
A10	55	27	19.9	19.4	80.1	80.6	2.1	1.8
A10	60	31	18.4		81.6		1.7	
A10	60	32	19.2	18.8	80.8	81.2	1.9	1.8
A11	0	33	24.7		75.3		1.9	
A11	0	34	23.5	24.1	76.5	75.9	1.9	1.9
A11	5	35	26.4		73.6		2.2	
A11	5	36	25.1	25.7	74.9	74.3	2.4	2.3
A11	10	37	24.9		75.1		2.5	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A11	10	38	23.2	24.1	76.8	75.9	3.0	2.8
A11	15	39	22.9		77.1		2.2	
A11	15	40	23.8	23.3	76.2	76.7	2.3	2.3
A11	20	41	25.4		74.6		2.2	
A11	20	42	23.3	24.3	76.7	75.7	2.4	2.3
A11	25	43	22.3		77.7		2.2	
A11	25	44	24.3	23.3	75.7	76.7	2.5	2.4
A11	30	45	22.3		77.7		2.5	
A11	30	46	22.9	22.6	77.1	77.4	3.0	2.8
A11	35	47	24.0		76.0		3.2	
A11	35	48	23.0	23.5	77.0	76.5	3.2	3.2
A11	40	49	36.1		63.9		4.0	
A11	40	50	22.8	29.4	77.2	70.6	3.5	3.8
A11	45	51	22.6		77.4		3.4	
A11	45	52	23.2	22.9	76.8	77.1	2.8	3.1
A11	50	53	22.9		77.1		1.5	
A11	50	54	20.9	21.9	79.1	78.1	1.5	1.5
A11	55	55	21.2		78.8		2.0	
A11	55	56	25.2	23.2	74.8	76.8	1.5	1.8
A11	60	57	22.3		77.7		2.5	
A11	60	58	22.8	22.6	77.2	77.4	2.5	2.5
A12	0	1	24.3		75.7		2.0	
A12	0	2	27.1	25.7	72.9	74.3	2.0	2.0
A12	5	3	19.2		80.8		2.0	
A12	5	4	21.9	20.5	78.1	79.5	3.0	2.5
A12	10	5	20.0		80.0		5.0	

Table A3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A12	10	6	22.1	21.1	77.9	78.9	5.0	5.0
A12	15	7	19.8		80.2		5.0	
A12	15	8	21.6	20.7	78.4	79.3	5.0	5.0
A12	20	9	19.0		81.0		5.0	
A12	20	10	20.9	19.9	79.1	80.1	5.0	5.0
A12	25	11	21.2		78.8		5.0	
A12	25	12	22.1	21.6	77.9	78.4	5.0	5.0
A12	30	13	23.6		76.4		2.5	
A12	30	14	21.8	22.7	78.2	77.3	3.0	2.8
A12	35	15	22.1		77.9		5.0	
A12	35	16	21.9	22.0	78.1	78.0	4.5	4.8
A12	40	17	19.4		80.6		3.0	
A12	40	18	20.0	19.7	80.0	80.3	3.5	3.3
A12	45	19	24.1		75.9		6.0	
A12	45	20	19.5	21.8	80.5	78.2	5.0	5.5
A12	50	21	20.8		79.2		5.0	
A12	50	22	21.7	21.3	78.3	78.7	5.5	5.3
A12	55	23	18.2		81.8		5.0	
A12	55	59	18.1	18.1	81.9	81.9	4.5	4.8
A12	60	60	21.9		78.1		3.5	
A12	60	61	21.1	21.5	78.9	78.5	4.5	4.0

Table A4 - Process data for tests A1 to A12, Part 1

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A1	0	0.9	23.5			
A1	6			27.9		
A1	12					
A1	19	0.8	16.4	26.4		
A1	25					
A1	37	1.0	22.9	29.5	48.2	
A1	45			25.5		
A1	51	0.7	22.3	26.4	73.9	
A1	56			25.7		
A1	60				71.7	
A2	0				228.7	64.8
A2	5				121.5	68.6
A2	18	0.8	17.0		243.0	79.2
A2	27	0.6	27.1	34.6	168.2	
A2	32			34.2	77.8	96.3
A2	40	0.7	25.3	25.4		73.6
A2	45			35.9		
A2	48	0.7	26.0	27.8	199.9	107.0
A2	56			28.7	111.8	
A2	62	1.0	24.4	25.9		61.1
A3	0	0.9	26.9	28.0	205.1	96.2
A3	5			29.5		
A3	10	0.8	23.7		98.3	25.1
A3	15		24.1	32.2		
A3	20	1.0		14.5	63.5	26.1
A3	25	0.5	29.0	28.8	97.1	44.4

Table A4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A3	30					
A3	35	0.9	26.5	23.5	180.7	45.4
A3	40			23.5		
A3	45			20.5		
A3	50	0.8	26.1		268.5	78.3
A3	55					
A3	60			29.2		
A4	0					
A4	5	0.9	30.1	15.6	184.8	80.8
A4	10					
A4	15	0.7	32.0	19.3	189.8	80.5
A4	20					
A4	25	0.6	33.5	14.9	173.5	47.9
A4	30					
A4	35	0.7	32.0	12.8	159.8	58.8
A4	45	0.8	31.0	12.8	133.1	22.6
A4	50					74.3
A4	60	1.0	32.0		191.1	84.5
A5	0	0.8	33.9		105.9	96.2
A5	10			27.7		
A5	15	1.0	34.3		99.8	25.1
A5	20	0.8	31.4	34.6		
A5	30	0.7	33.9	27.9	89.4	26.1
A5	35			30.4	115.3	
A5	45	1.1	31.2	32.6		
A5	50			23.7		45.4

Table A4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A5	55					
A5	60					
A5	65	0.9	30.2	44.8	201.2	78.3
A6	0	0.8	21.0	14.6	102.8	37.2
A6	5					
A6	10				53.5	36.9
A6	15					
A6	20	1.1	25.0	23.5		
A6	25	0.7	26.6	41.0	211.2	80.4
A6	30					
A6	35	0.9	24.0	31.9	179.6	54.7
A6	40					
A6	45	1.0	26.3	22.7	156.4	57.8
A6	50					
A6	55	1.0	24.7		175.9	70.9
A6	60			34.7	198.9	66.8
A7	0					
A7	10	0.7	988	23.0	164.7	28.8
A7	15					
A7	20	0.7	1023	20.7	164.8	28.8
A7	25					
A7	30	0.7	1080	17.8	174.9	32.3
A7	35					
A7	40	0.7	1056	20.8	169.8	28.6
A7	45					
A7	50	0.8	1080	17.6	169.8	65.5

Table A4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A7	55					
A7	60	0.7	1067	17.2	202.0	
A8	0					
A8	10	0.9	885	20.6	35.0	29.1
A8	15					
A8	20	0.8	955	28.9	177.8	74.7
A8	25					
A8	30	0.8	883	15.2	103.3	34.0
A8	35					
A8	40	0.9	869	8.6	94.9	50.2
A8	45					
A8	50	0.9	946		184.2	47.1
A8	55					
A8	60	0.5	859	28.7	182.2	28.0
A8	70	0.6	1028			
A9	0					
A9	5					
A9	10	0.5	1282	17.8	94.6	39.1
A9	15					
A9	20	0.7	1049	23.6	145.7	57.2
A9	25					
A9	30	0.9	1084	22.7	172.1	36.3
A9	35					
A9	40	0.7	1060	19.3	201.0	40.0
A9	45					
A9	50	0.6	1022	24.0	178.5	56.0

Table A4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A9	55					
A9	60	0.6	1025	22.4	184.3	38.7
A10	0	0.9	867	35.6	117.2	55.3
A10	5					
A10	10	0.9	942	35.4	103.3	83.3
A10	15					
A10	20	0.9	911	47.7	123.4	66.2
A10	25					
A10	30	0.8	953	43.6	110.0	85.2
A10	35					
A10	40	1.0	929	37.3	124.0	56.6
A10	45					
A10	50	0.8	956	37.5	112.6	53.0
A10	55					
A10	60			43.2	108.0	66.7
A11	0	0.9	946	38.8	152.1	83.8
A11	5					
A11	10	0.8	913	32.4	164.1	78.4
A11	15					
A11	20	1.0	866	39.0	202.1	68.9
A11	25					
A11	30	0.7	917	44.2	202.1	54.9
A11	35					
A11	40	1.7	797	32.6	172.2	63.3
A11	45					
A11	50	0.9	810	47.3	108.0	66.7

Table A4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A11	55					
A11	60					
A12	0	0.8	1018		155.4	47.7
A12	5					
A12	10	0.9	981	18.9	152.4	67.6
A12	15					
A12	20	0.8	1010		158.0	80.5
A12	25			30.8		
A12	30	0.7	990		140.7	65.1
A12	35			32.8		
A12	40	0.5	1072		139.4	85.6
A12	45					
A12	50	0.7	1036	30.6		
A12	55				89.6	32.3
A12	60			33.2		

Table A5 - Combined test results of tests A1 to A12, Part 1

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A1	0	23.5	0.9	0.00	74.8	1.8					17	16	0.24
A1	6			0.00	79.5	2.9	27.9				20	22	0.24
A1	12			0.00	80.6	4.2					20	22	0.24
A1	19	16.4	0.8	0.00	80.3	3.8	26.4	134.3	107.9	96.1	23	20	0.24
A1	25			0.00	81.0	3.1					23	20	0.24
A1	37	22.9	1.0	0.00	79.4	4.3	29.5	105.5	76.0	97.0	23	20	0.24
A1	45			0.00	79.7	6.0	25.5				21	20	0.24
A1	51	22.3	0.7	0.00	81.0	3.9	26.4	98.2	71.8	97.5	20	16	0.24
A1	56			0.00	79.3	4.2	25.7				20	20	0.24
A1	60			0.00	80.3	4.6					19	20	0.24
A2	0			0.00	81.0	1.9					20	20	0.73
A2	5			0.00	79.7	1.3					15	15	0.73
A2	15	17.0	0.8	0.00	80.2	2.3					20	20	0.73
A2	25	27.1	0.6	0.00	82.0	2.5	34.6	106.2	71.6	98.4	21	20	0.73
A2	35		0.0	0.00	81.2	2.2	34.2				18	18	0.73
A2	40	25.3	0.7	0.00	79.6	2.4	25.4	81.3	56.0	98.2	20	20	0.73
A2	45		0.0	0.00	77.6	1.9	35.9				22	20	0.73
A2	50	26.0	0.7	0.00	80.0	2.0	27.8	87.2	59.3	98.1	21	21	0.73
A2	60		0.0	0.00	79.2	2.0	28.7				23	23	0.73
A2	65	24.4	1.0	0.00	80.3	2.0	25.9	87.7	61.7	97.3	22	21	0.73
A3	0	26.9	0.9	0.00	78.4	1.5	28.0	83.5	55.5	97.9	8	10	0.73
A3	5			0.00	69.2	1.8	29.5				8	10	0.73
A3	10	23.7	0.8	0.00	79.2	1.7					8	10	0.73
A3	15	24.1		0.00	81.0	1.8	32.2	108.4	76.2	100.0	8	10	0.73
A3	20		1.0	0.00	79.3	1.7	14.5				8	10	0.73
A3	25	29.0	0.5	0.00	76.9	1.7	28.8	77.3	48.5	98.9	9	11	0.73

Table A5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A3	30			0.00	79.6	1.5					6	8	0.73
A3	35	26.5	0.9	0.00	81.3	1.8	23.5	74.0	50.4	97.7	8	11	0.73
A3	40			0.00	82.3	1.7	23.5				8	11	0.73
A3	45			0.00	79.3	1.4	20.5				7	10	0.73
A3	50	26.1	0.8	0.00	76.6	1.3					8	11	0.73
A3	55			0.00	75.8	1.5					8	11	0.73
A3	60			0.00	78.5	1.3	29.2				9	11	0.73
A4	0			0.00	78.3	1.9					14	12	0.24
A4	5	30.1	0.9	0.00	79.6	2.5	15.6	42.1	26.4	98.1	10	14	0.24
A4	10			0.00	78.0	4.0					6	10	0.24
A4	15	32.0	0.7	0.00	77.6	3.2	19.3	47.4	28.1	98.7	12	11	0.24
A4	20			0.00	79.7	4.0					14	10	0.24
A4	25	33.5	0.6	0.00	81.0	2.8	14.9	36.5	21.6	98.9	8	10	0.24
A4	30			0.00	78.5	2.7					8	10	0.24
A4	35	32.0	0.7	0.00	79.4	3.7	12.8	32.2	19.4	98.6	13	10	0.24
A4	45	31.0	0.8	0.00	81.6	3.8	12.8	34.1	21.3	98.5	12	10	0.24
A4	50		1.0	0.00	80.0	3.7					13	12	0.24
A4	60	32.0	1.0	0.00	80.5	3.8					13	10	0.24
A5	0	33.9	0.8	0.00	81.1	3.9					21	21	0.38
A5	10			0.00	81.8	4.8	27.7				23	23	0.38
A5	15	34.3	1.0	0.00	81.1	3.3					18	18	0.38
A5	25	31.4	0.8	0.00	79.7	4.5	34.6	89.5	54.9	98.3	20	20	0.38
A5	30	33.9	0.7	0.00	80.8	4.3	27.9	67.3	39.4	98.8	20	20	0.38
A5	40			0.00	81.6	4.3	30.4				20	20	0.38
A5	45	31.2	1.1	0.00	80.9	4.0	32.6	86.3	53.7	97.9	19	20	0.38
A5	50			0.00	81.6	3.8	23.7				23	20	0.38

Table A5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A5	55			0.00	80.5	3.8					22	22	0.38
A5	60			0.00	81.5	3.8					19	19	0.38
A5	65	30.2	0.9	0.00	80.0	3.3	44.8	120.7	75.9	98.2	18	20	0.38
A6	0	21.0	0.8	0.00	80.1	1.5	14.6	57.2	42.7	97.1	20	20	0.55
A6	5			0.00	82.2	1.8					17	22	0.55
A6	10			0.00	81.0	2.3					16	16	0.55
A6	15			0.00	80.2	1.8					17	17	0.55
A6	20	25.0		0.00	81.8	2.3	23.5				21	21	0.55
A6	25	26.6	0.7	0.00	81.6	2.3	41.0	128.4	87.3	98.2	22	20	0.55
A6	30			0.00	80.8	2.3					21	21	0.55
A6	35	24.0	0.9	0.00	81.3	2.3	31.9	110.8	79.0	97.4	21	21	0.55
A6	40			0.00	80.9	2.0					20	20	0.55
A6	45	26.3	1.0	0.00	81.2	2.2	22.7	72.1	49.3	97.5	20	19	0.55
A6	50			0.00	81.6	2.8					20	19	0.55
A6	55	24.7	1.0	0.00	81.3	3.1					20	20	0.55
A6	60			0.00	81.1	2.5	34.7				20	20	0.55
A7	0			0.00	79.8	2.7					8	10	0.38
A7	10	30.4	0.7	0.00	81.4	2.7	23.0	62.4	39.5	98.5	8	10	0.38
A7	15			0.00	79.5	2.7					8	10	0.38
A7	20	31.8	0.7	0.00	80.3	2.5	20.7	53.1	32.3	98.6	8	10	0.38
A7	25			0.00	79.0	2.8					8	11	0.38
A7	30	25.4	0.7	0.00	78.7	2.2	17.8	56.2	38.4	98.0	8	12	0.38
A7	35			0.00	78.0	2.3					9	12	0.38
A7	40	24.0	0.7	0.00	78.1	2.2	20.8	69.1	48.3	97.8	8	8	0.38
A7	45			0.00	79.5	3.1					10	10	0.38
A7	50	26.9	0.8	0.00	75.4	2.3	17.6	50.3	32.7	98.1	8	8	0.38

Table A5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A7	55			0.00	79.6	2.2					8	12	0.38
A7	60	28.5	0.7	0.00	78.1	1.8	17.2	47.9	30.7	98.5	6	10	0.38
A8	0			0.00	78.5	1.7					10	12	0.55
A8	10	25.4	0.9	0.00	77.4	1.5	20.6	64.6	44.0	97.5	5	8	0.55
A8	15			0.00	78.2	1.5					8	10	0.55
A8	20	27.5	0.8	0.00	78.1	2.0	28.9	83.8	54.9	98.0	10	12	0.55
A8	25			0.00	77.4	1.0					8	8	0.55
A8	30	15.0	0.8	0.00	75.8	1.7	15.2	80.2	64.9	95.8	10	8	0.55
A8	35			0.00	73.5	1.0					8	10	0.55
A8	40	21.1	0.9	0.00	72.7	1.4	8.6	30.7	22.0	97.0	8	10	0.55
A8	45			0.00	69.9	1.0					8	10	0.55
A8	50	27.9	0.9	0.00	78.9	1.4					9	11	0.55
A8	55			0.00	80.1	1.7					8	11	0.55
A8	60	17.3	0.5	0.00	78.1	1.8	28.7	132.9	104.3	97.6	10	10	0.55
A9	0			0.00	79.3	2.0					21	20	0.24
A9	5			0.00	77.4	2.5					18	18	0.24
A9	10	31.4	0.0	0.00	80.4	2.0	17.8	45.5	27.7	100.0	23	20	0.24
A9	15		0.7	0.00	80.3	3.5					22	20	0.24
A9	20	27.1	0.7	0.00	81.2	4.0	23.6	71.8	48.2	98.2	22	20	0.24
A9	25			0.00	80.9	4.3					25	20	0.24
A9	30	26.7	0.9	0.00	81.5	3.0	22.7	70.8	48.2	97.6	23	20	0.24
A9	35			0.00	80.8	2.8					18	20	0.24
A9	40	20.4	0.7	0.00	81.2	3.0	19.3	78.7	59.4	97.4	19	20	0.24
A9	45			0.00	82.2	2.8					18	20	0.24
A9	50	24.5	0.6	0.00	83.2	4.0	24.0	83.1	59.1	98.1	23	20	0.24
A9	55			0.00	81.6	5.0					23	20	0.24

Table A5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A9	60	18.2	0.6	0.00	81.3	4.3	22.4	102.3	80.0	97.6	23	20	0.24
A10	0	30.6	0.9	0.00	79.5	1.5	35.6	94.3	58.7	98.1	18	22	0.73
A10	5			0.00	80.8	1.8					19	20	0.73
A10	10	30.7	0.9	0.00	82.3	1.4	35.4	96.6	61.2	98.1	20	20	0.73
A10	15			0.00	81.5	2.0					22	22	0.73
A10	20	30.4	0.9	0.00	81.5	1.9	47.7	130.4	82.6	98.1	17	21	0.73
A10	25			0.00	82.1	1.8					19	19	0.73
A10	30	30.7	0.8	0.00	81.8	2.0	43.6	118.4	74.8	98.3	20	21	0.73
A10	35			0.00	79.9	1.3					21	20	0.73
A10	40	28.8	1.0	0.00	81.4	1.6	37.3	108.1	70.7	97.8	22	19	0.73
A10	45			0.00	81.3	2.1					21	21	0.73
A10	50	31.6	0.8	0.00	80.0	1.4	37.5	96.4	58.9	98.5	20	20	0.73
A10	55			0.00	80.6	1.8					19	21	0.73
A10	60			0.00	81.2	1.8	43.2				21	21	0.73
A11	0	28.3	0.9	0.00	75.9	1.9	38.8	105.9	67.1	98.0	10	10	0.73
A11	5			0.00	74.3	2.3					10	10	0.73
A11	10	29.0	0.8	0.00	75.9	2.8	32.4	86.6	54.1	98.2	10	10	0.73
A11	15			0.00	76.7	2.3					10	10	0.73
A11	20	24.9	1.0	0.00	75.7	2.3	39.0	121.8	82.8	97.4	10	10	0.73
A11	25			0.00	76.7	2.4					10	10	0.73
A11	30	25.3	0.7	0.00	77.4	2.8	44.2	137.7	93.5	98.1	10	10	0.73
A11	35			0.00	76.5	3.2					10	10	0.73
A11	40	28.9	1.7	0.00	70.6	3.8	32.6	82.6	50.0	96.4	10	10	0.73
A11	45			0.00	77.1	3.1					10	10	0.73
A11	50	29.7	0.9	0.00	78.1	1.5	47.3	126.8	79.5	98.0	8	12	0.73
A11	55			0.00	76.8	1.8					7	8	0.73

Table A5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A11	60			0.00	77.4	2.5					9	10	0.73
A12	0	28.5	0.8	0.00	74.3	2.0					15	15	0.24
A12	5			0.00	79.5	2.5					15	10	0.24
A12	10	29.2	0.0	0.00	78.9	5.0	18.9	51.1	32.2	100.0	15	10	0.24
A12	15			0.00	79.3	5.0					15	10	0.24
A12	20	31.2	0.8	0.00	80.1	5.0					14	14	0.24
A12	25			0.00	78.4	5.0	30.8				15	12	0.24
A12	30	31.8	0.7	0.00	77.3	2.8					12	10	0.24
A12	35			0.00	78.0	4.8	32.8				12	12	0.24
A12	40	27.7	0.5	0.00	80.3	3.3					15	12	0.24
A12	45			0.00	78.2	5.5					13	12	0.24
A12	50	31.8	0.7	0.00	78.7	5.3	30.6	76.7	46.1	98.7	13	11	0.24
A12	55			0.00	81.9	4.8					13	10	0.24
A12	60			0.00	78.5	4.0	33.2				13	12	0.24

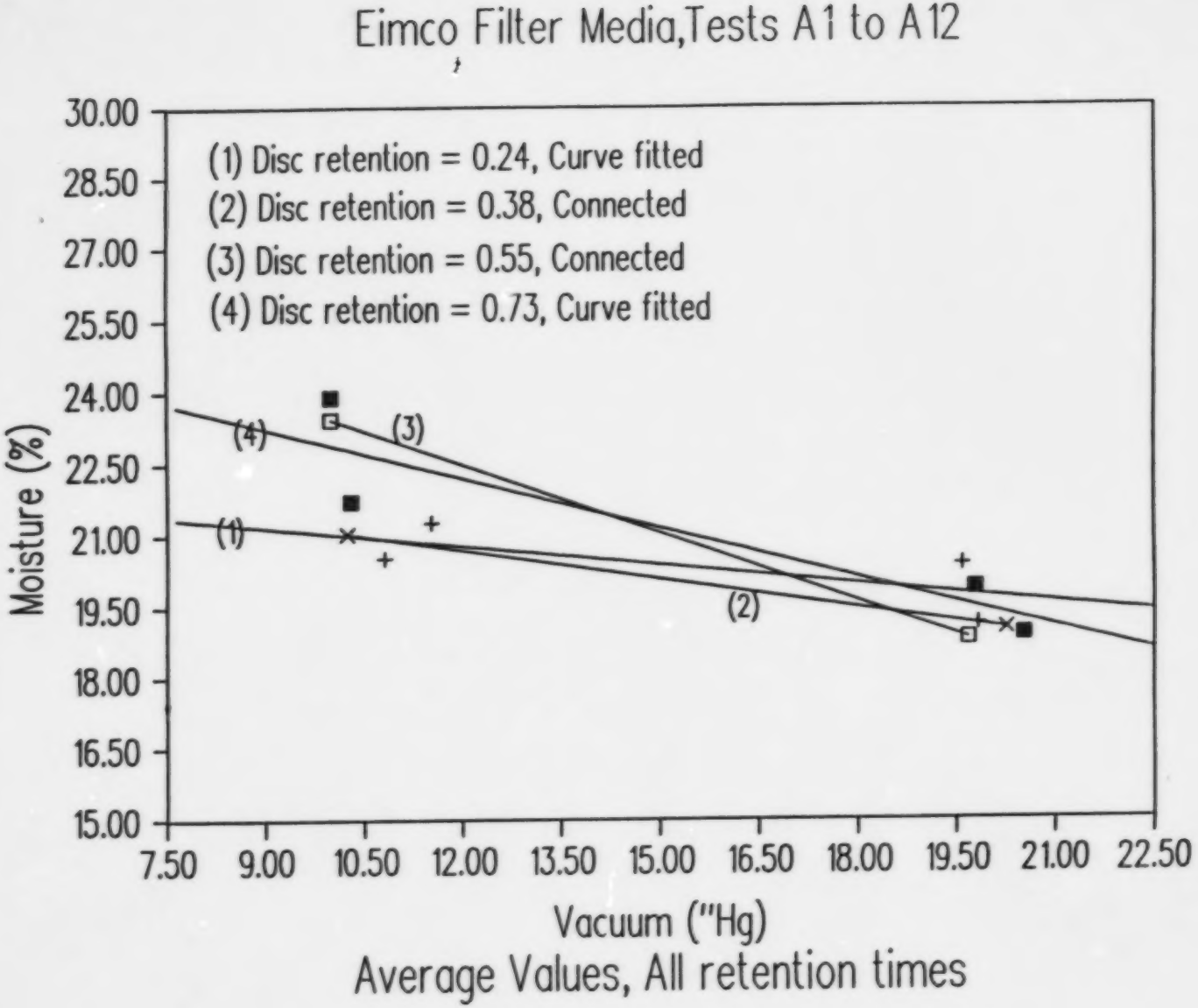

Figure A1 - Moisture vs vacuum at all retention times for tests A1 to A12, Part 1

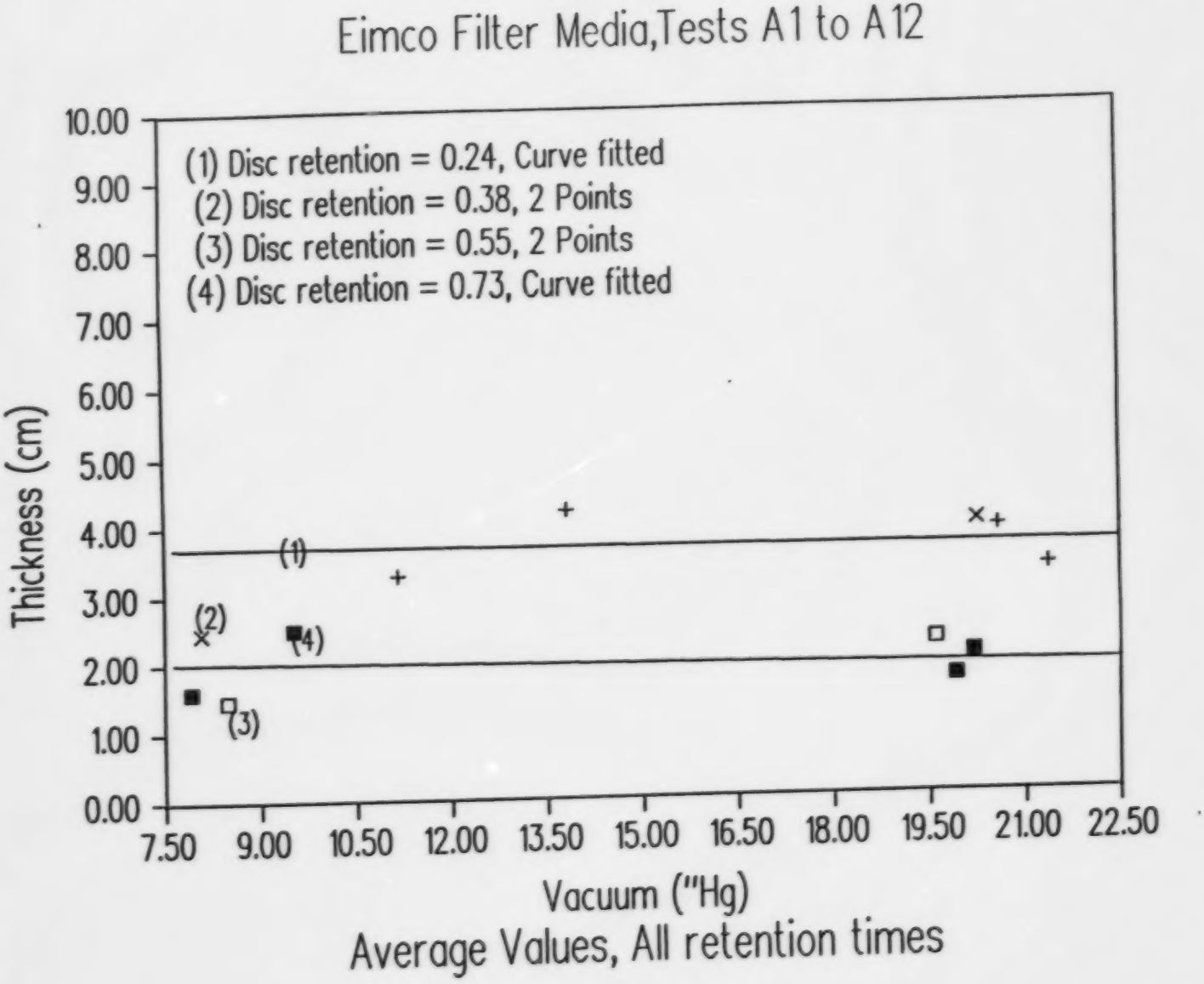

Figure A2 - Cake thickness vs vacuum at all retention times for tests A1 to A12, Part 1

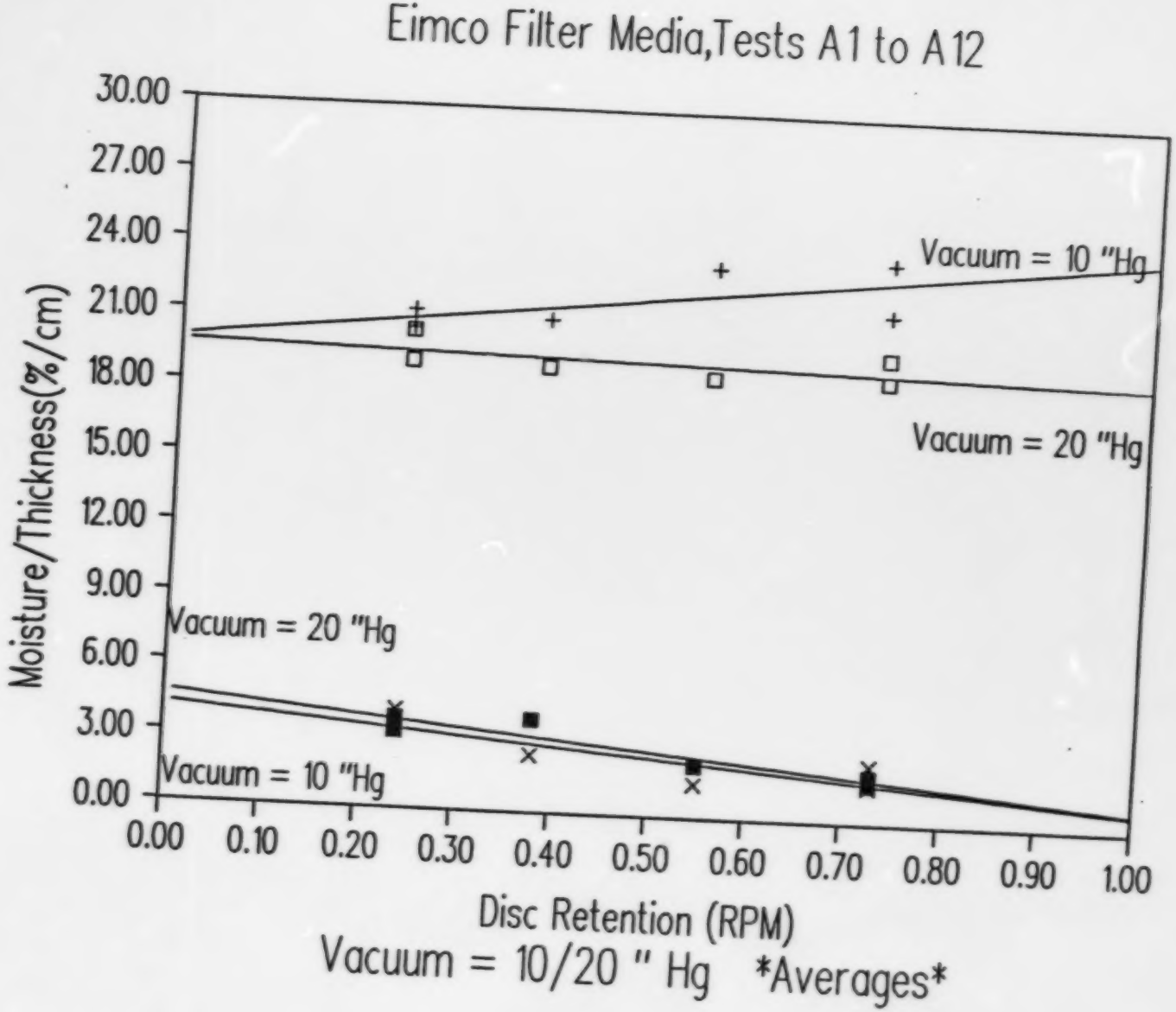

Figure A3 - Cake moisture/thickness vs disc retention for tests A1 to A12, Part 1

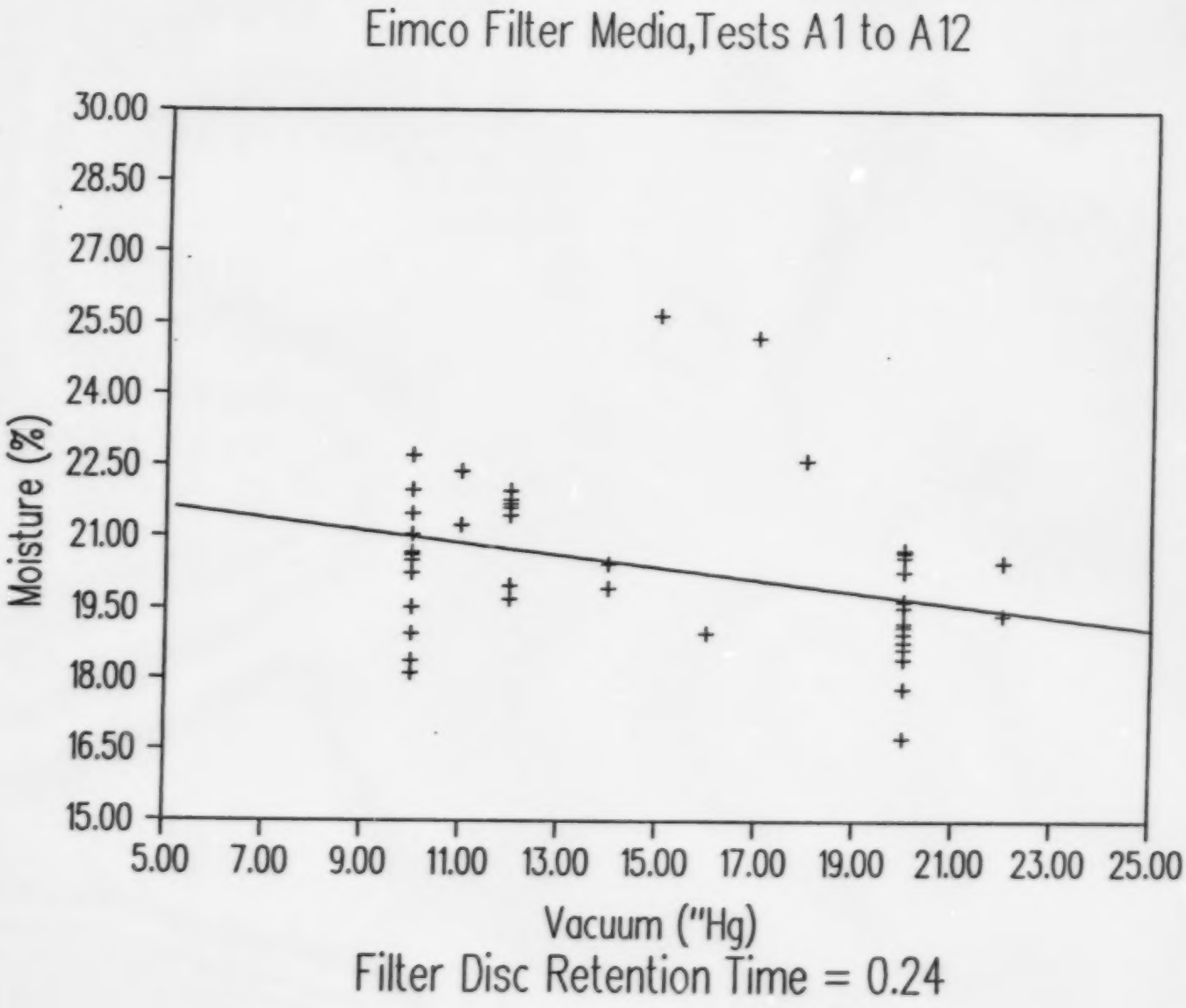

Figure A4 - Cake moisture vs vacuum at disc retention time (0.24) for tests A1 to A12, Part 1

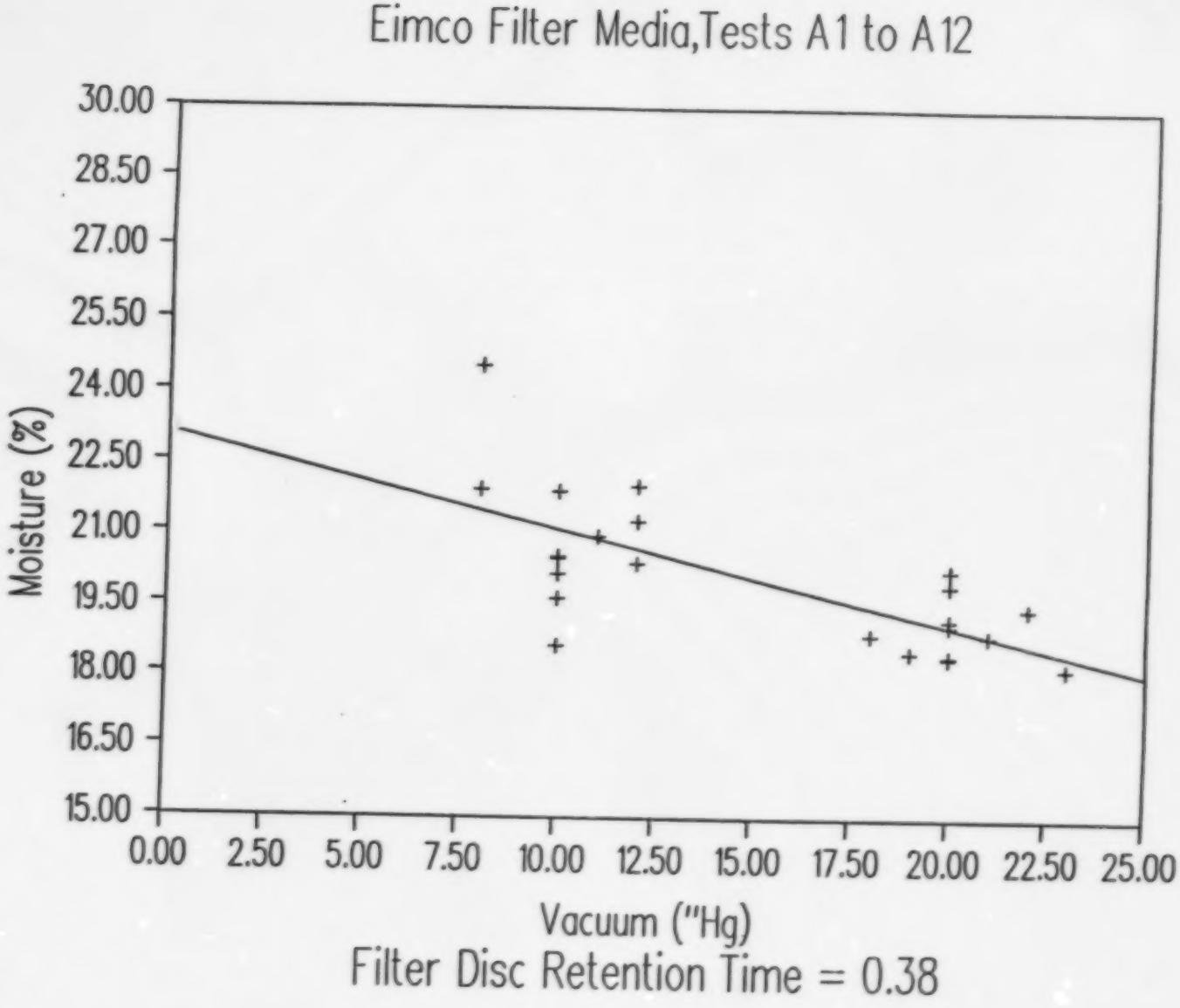

Figure A5 - Cake moisture vs vacuum at disc retention time (0.38) for tests A1 to A12, Part 1

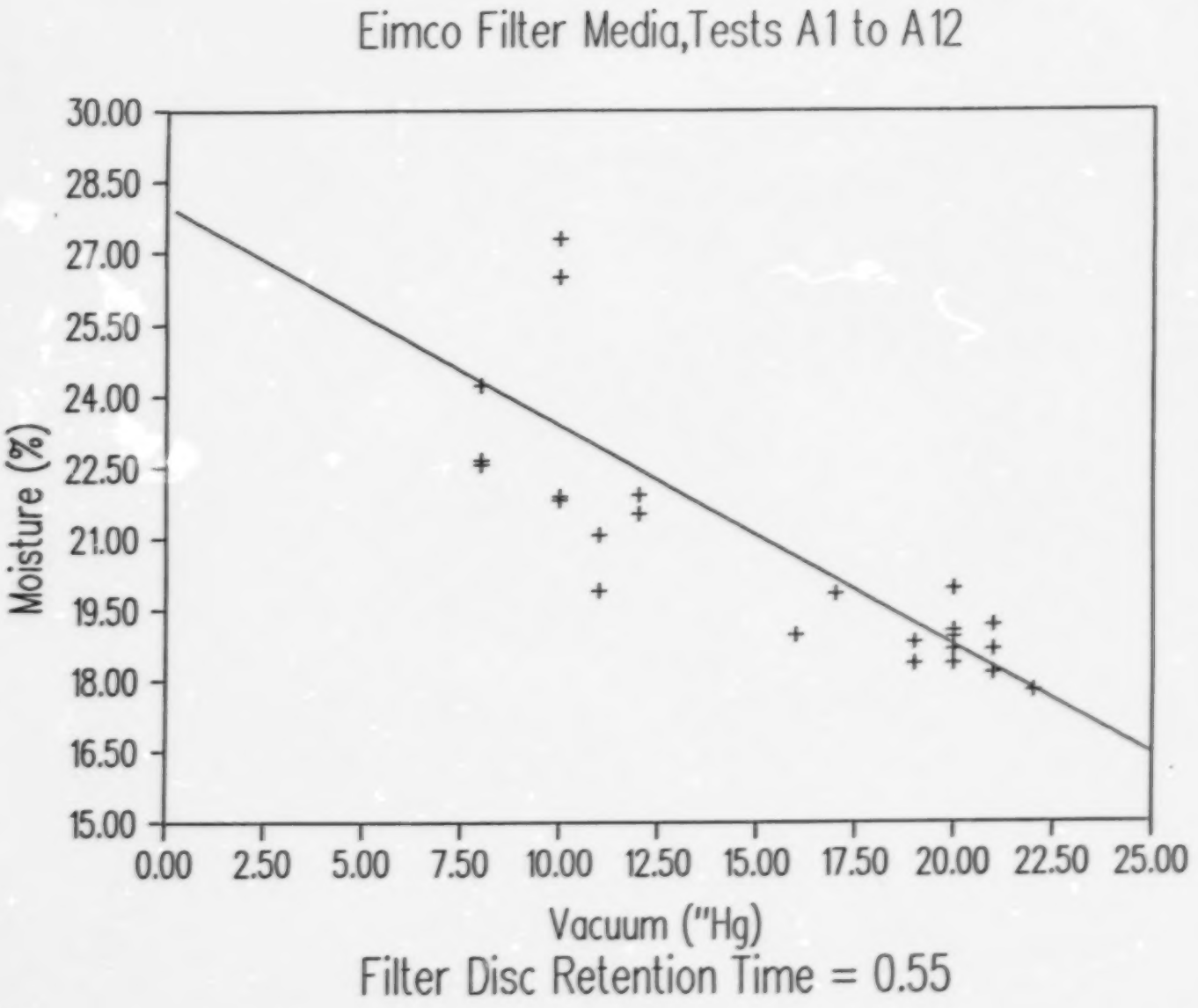

Figure A6 - Cake moisture vs vacuum at disc retention time (0.55) for tests A1 to A12, Part 1

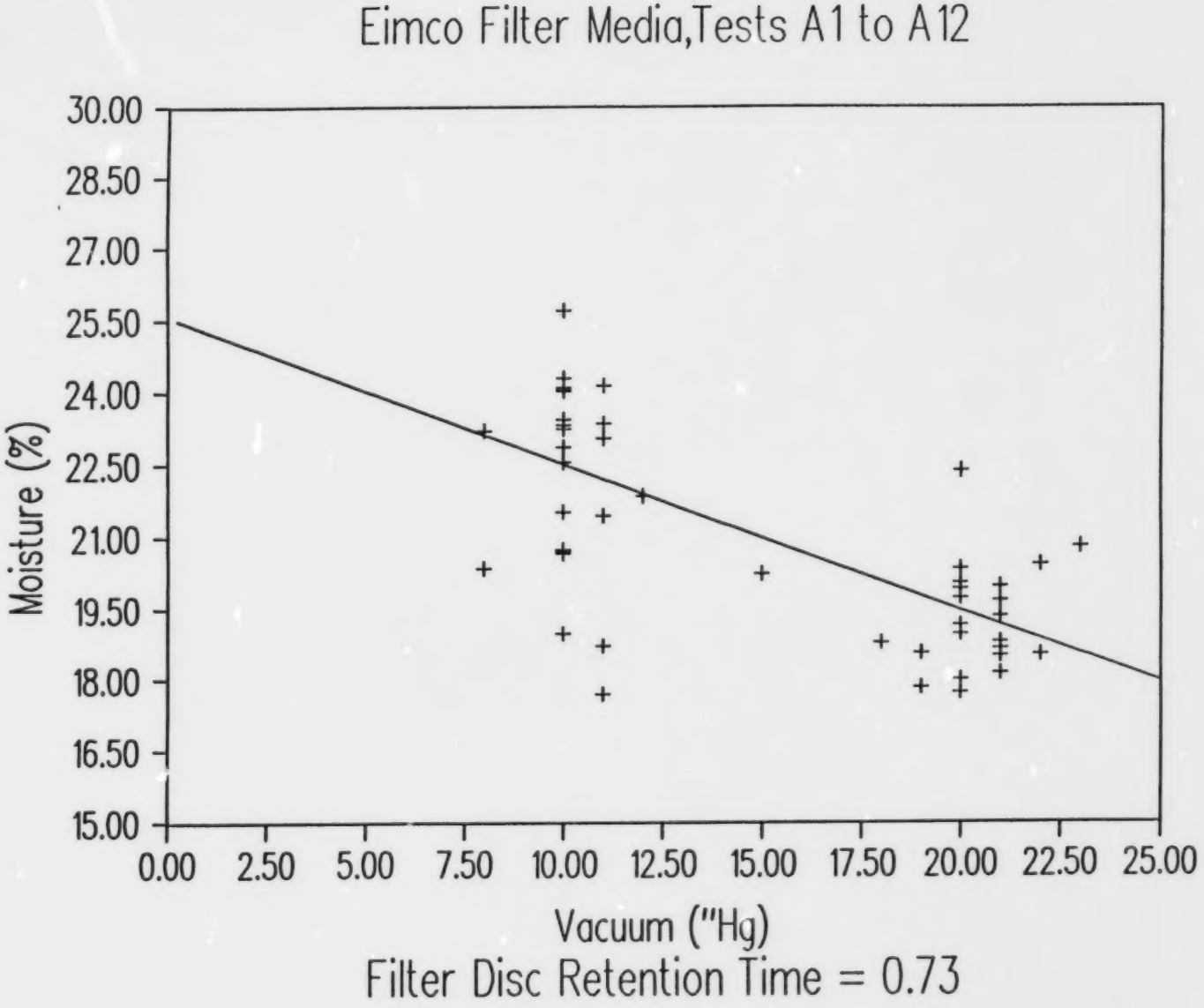

Figure A7 - Cake moisture vs vacuum at disc retention time (0.73) for tests A1 to A12, Part 1

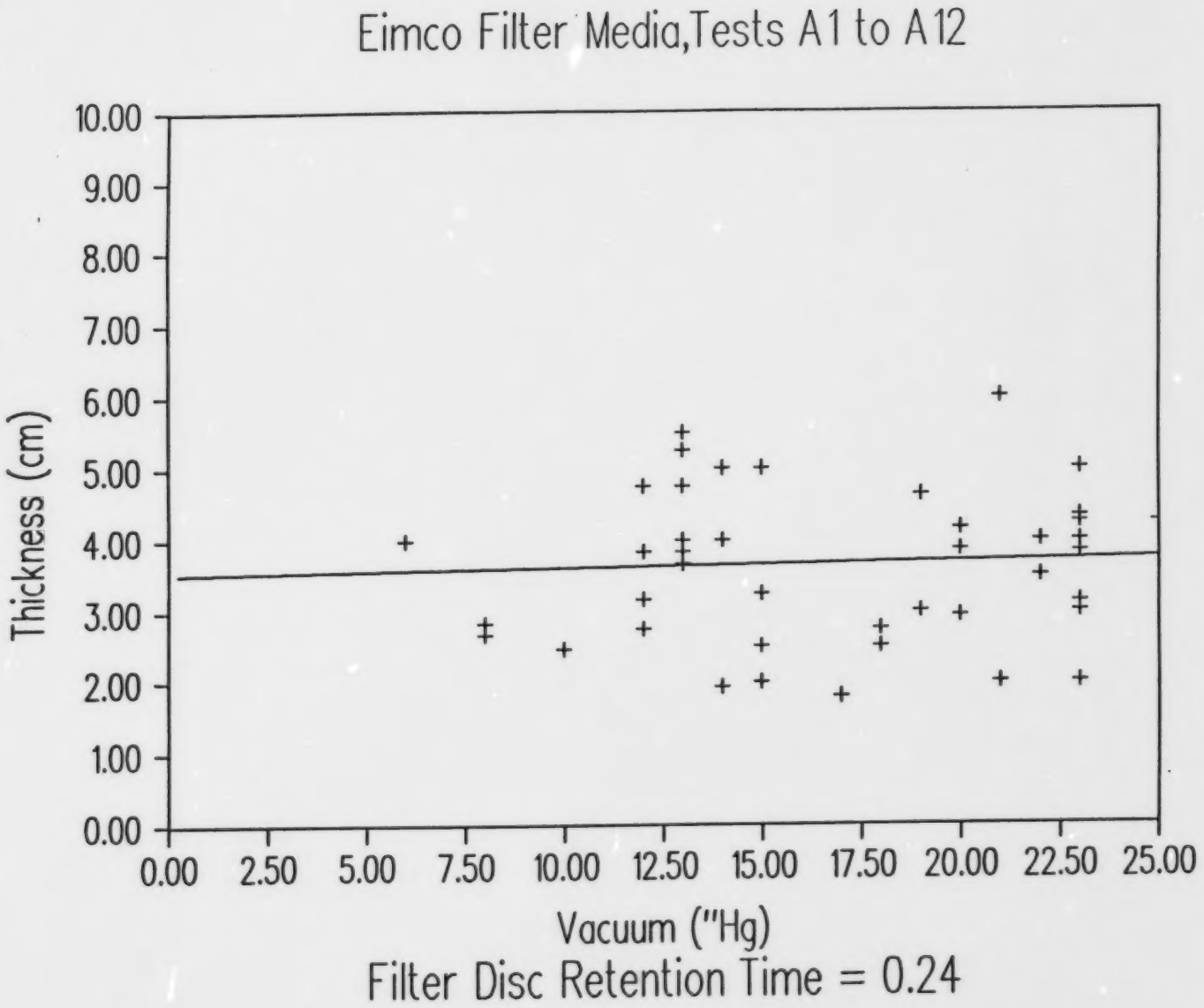

Figure A8 - Cake thickness vs vacuum at disc retention time (0.24) for tests A1 to A12, Part 1

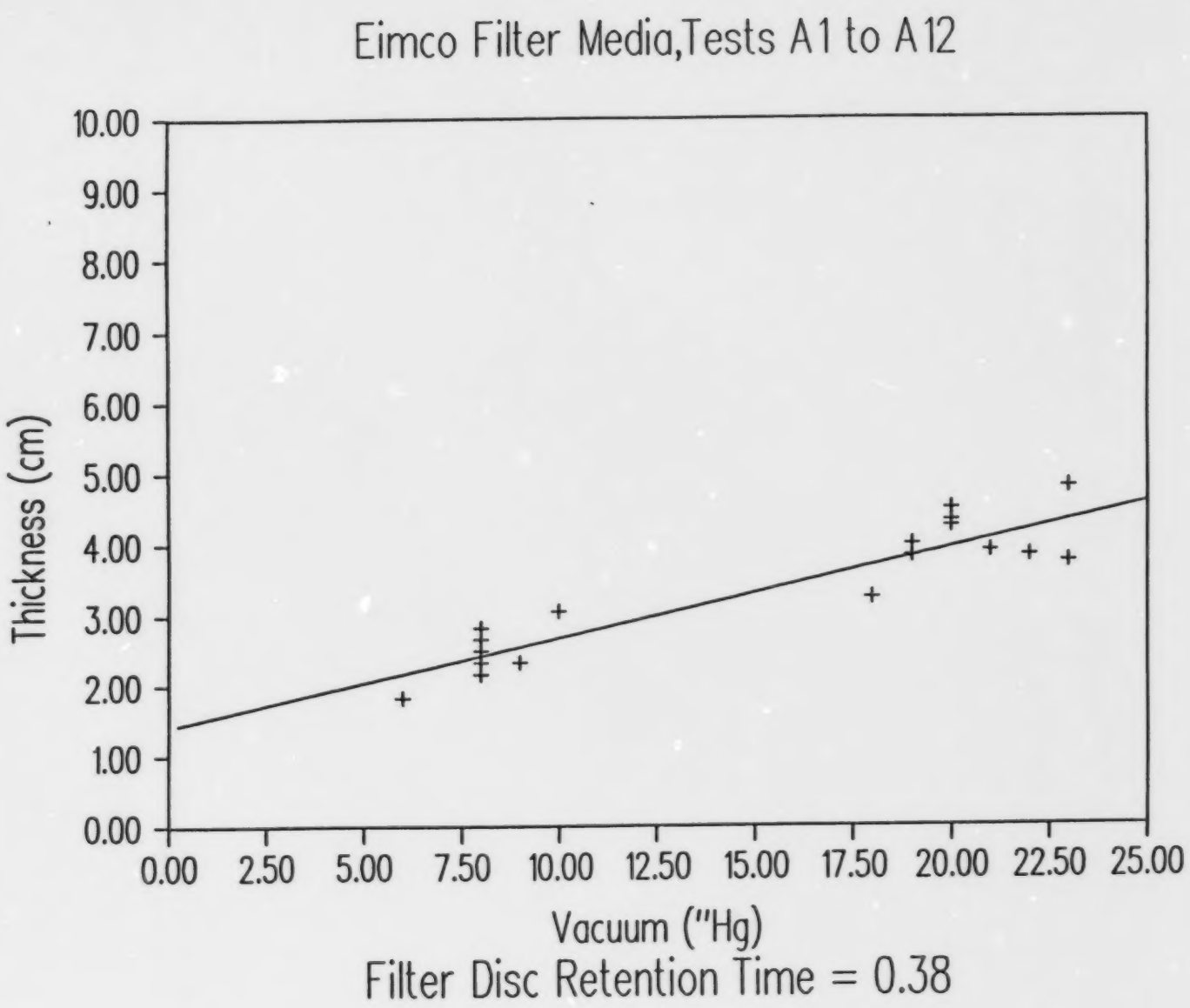

Figure A9 - Cake thickness vs vacuum at disc retention time (0.38) for tests A1 to A12, Part 1

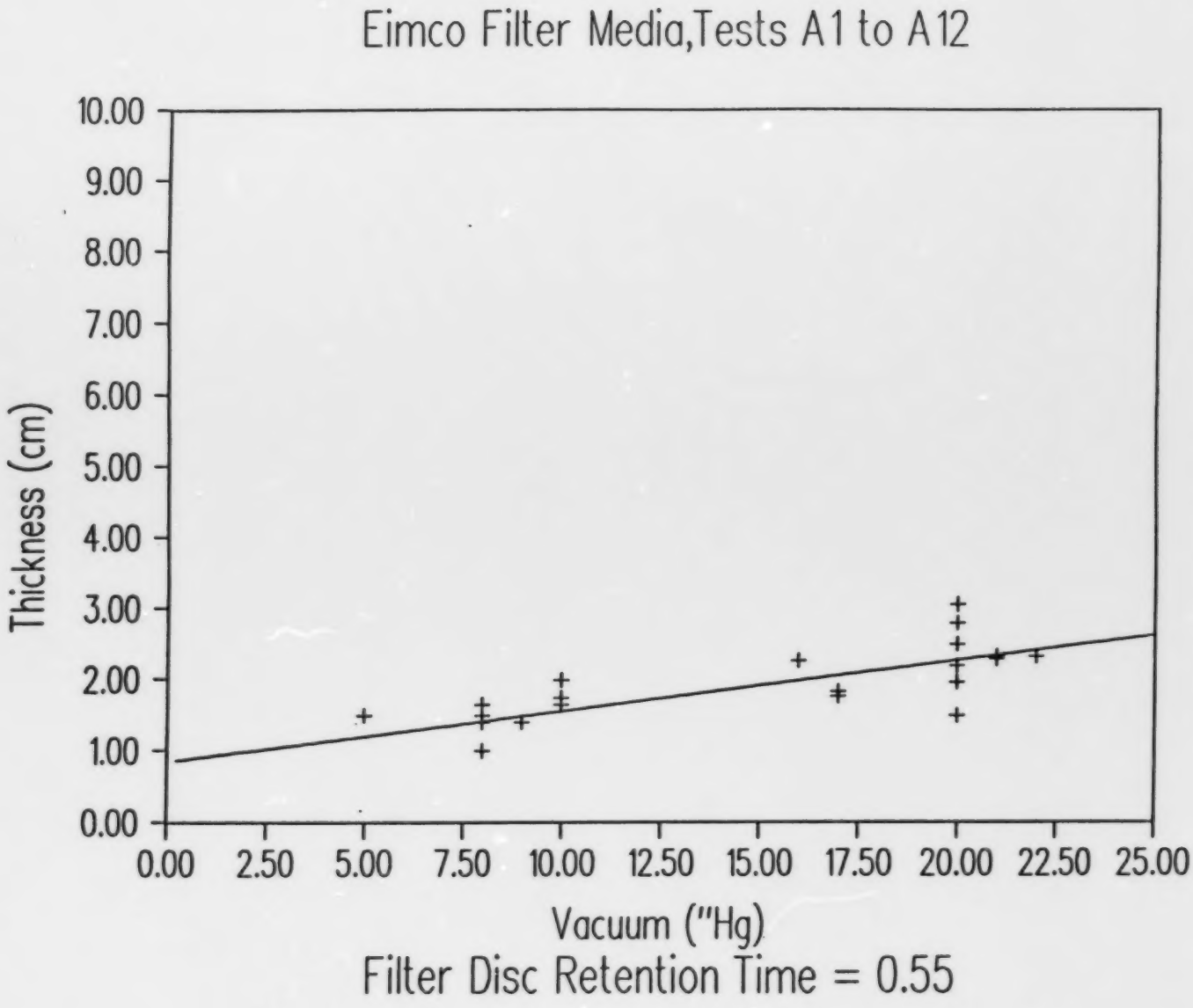

Figure A10 - Cake thickness vs vacuum at disc retention time (0.55) for tests A1 to A12, Part 1

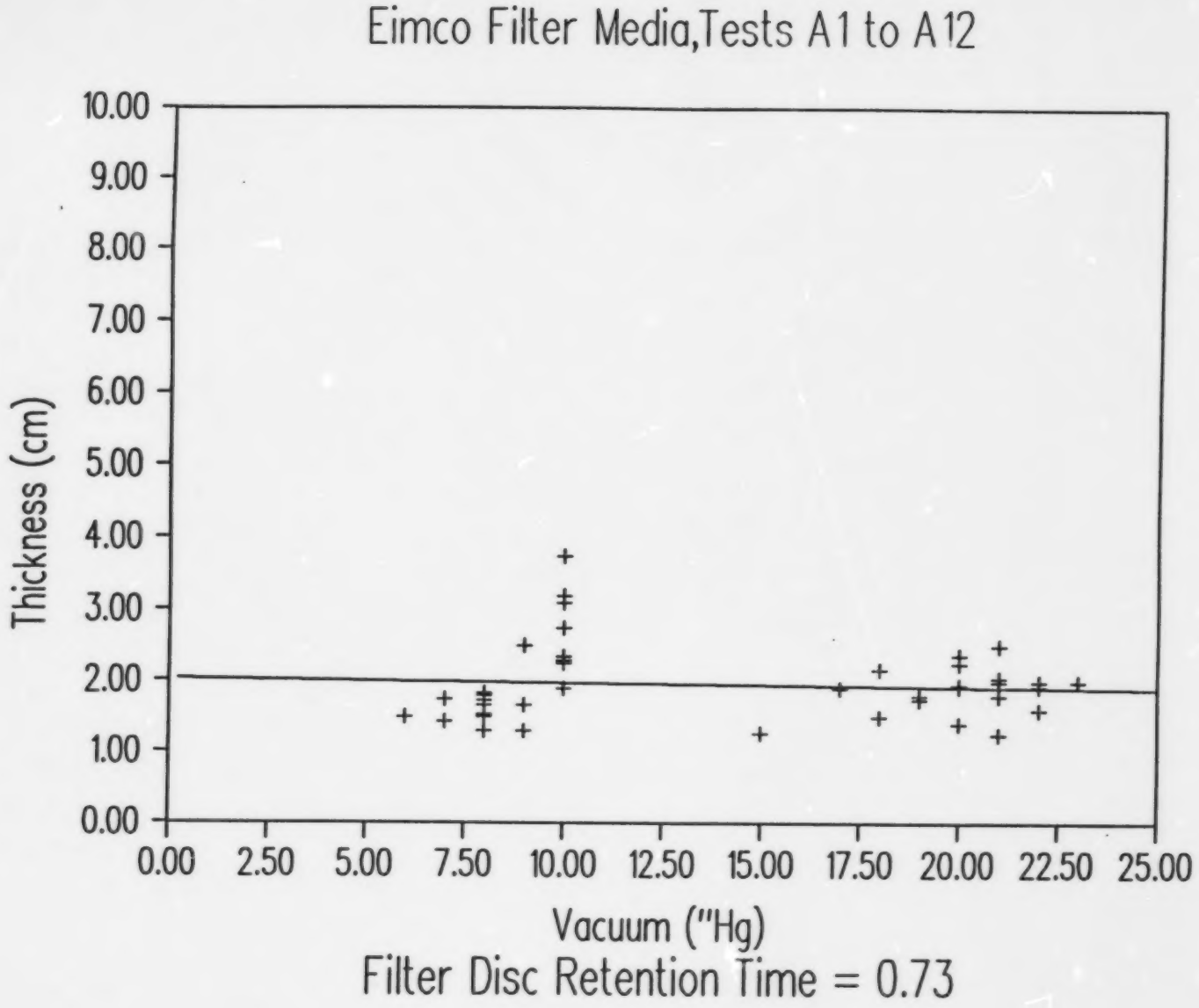

Figure A11 - Cake thickness vs vacuum at disc retention time (0.73) for tests A1 to A12, Part 1

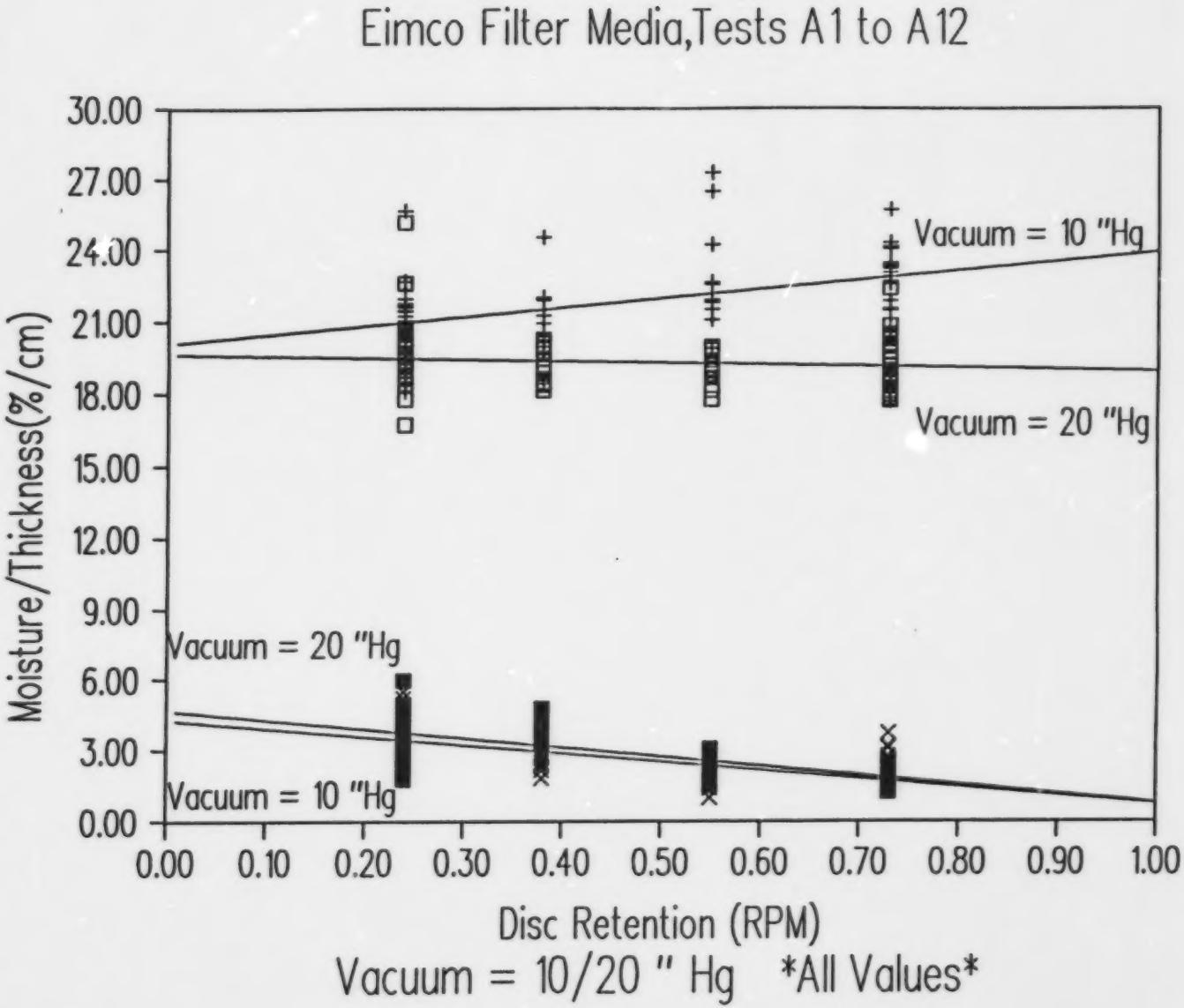

Figure A12 - Cake moisture/thickness vs disc retention at vacuum (10/20) for tests A1 to A12, Part 1

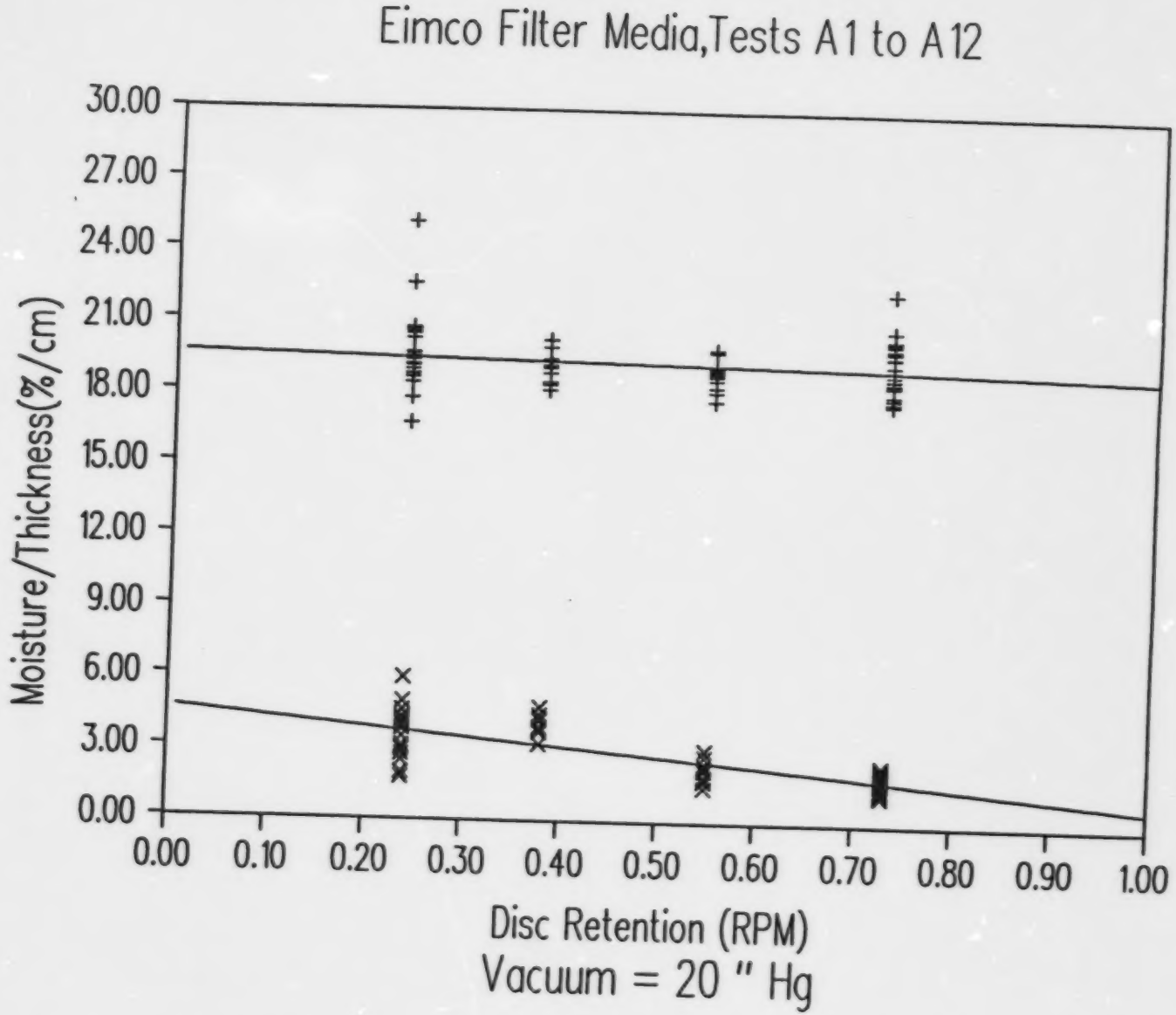

Figure A13 - Cake moisture/thickness vs disc retention at vacuum (20) for tests A1 to A12, Part 1

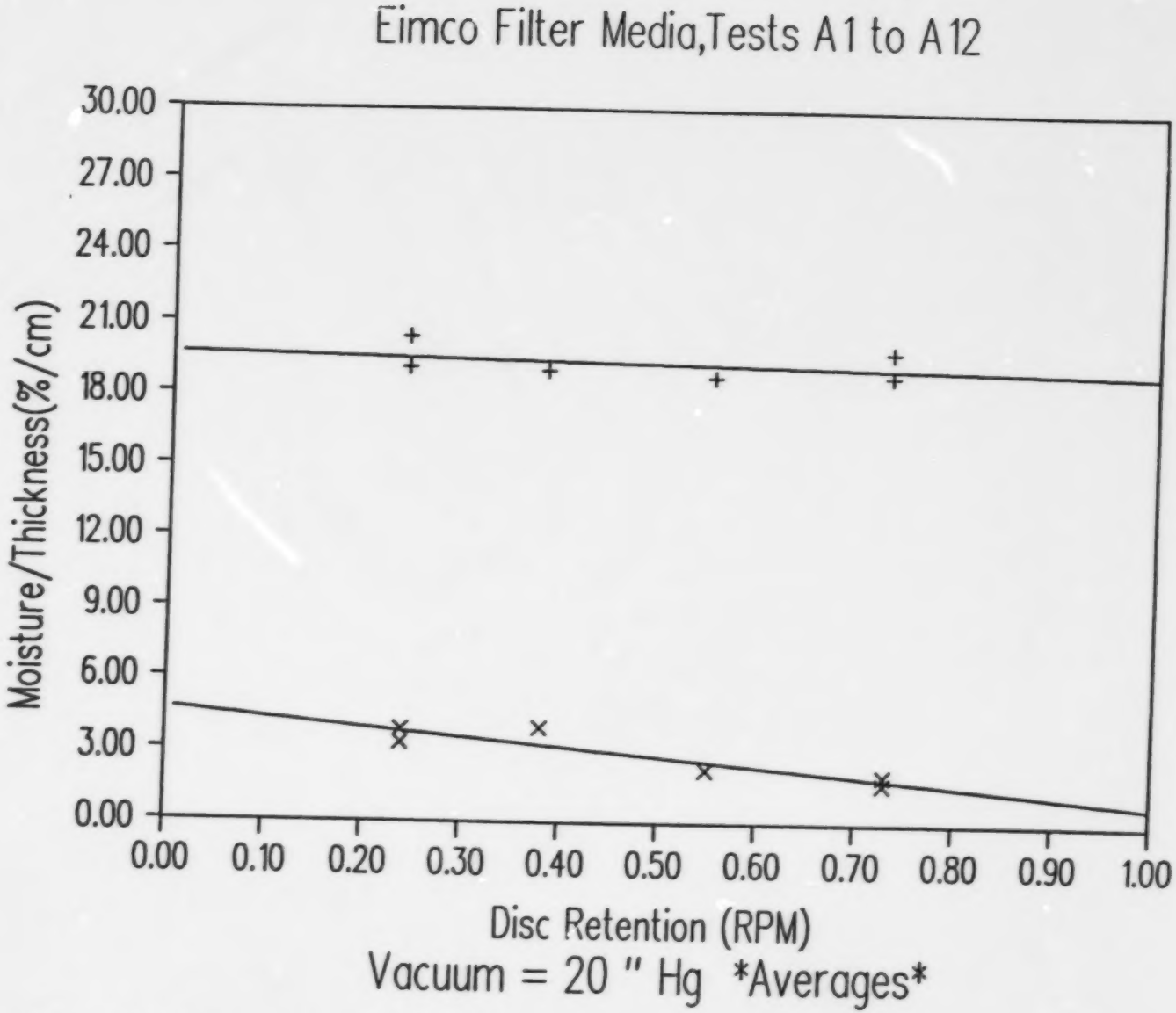

Figure A14 - Cake moisture/thickness vs disc retention at vacuum (20) for tests A1 to A12, Part 1

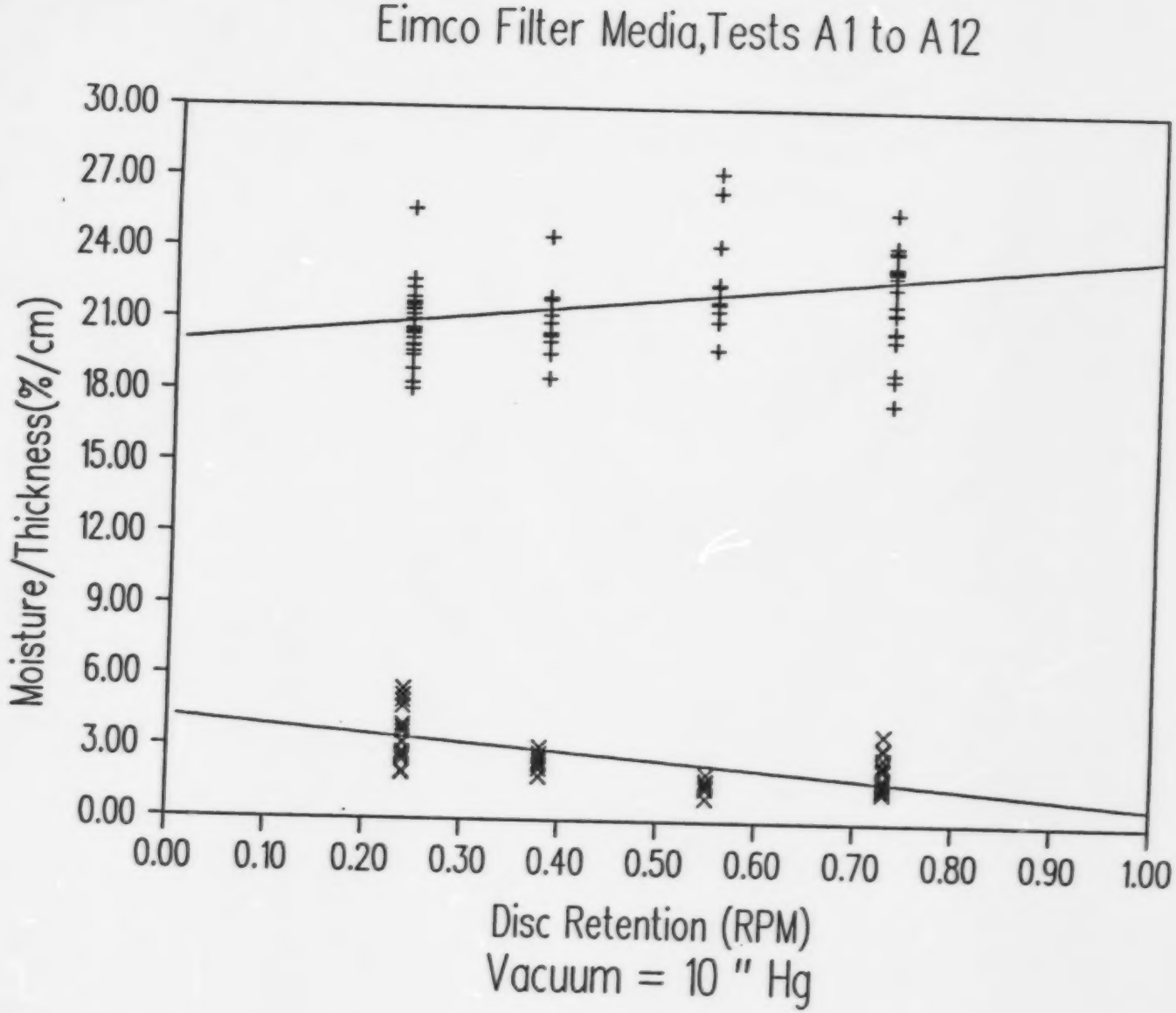

Figure A15 - Cake moisture/thickness vs disc retention at vacuum (10) for tests A1 to A12, Part 1

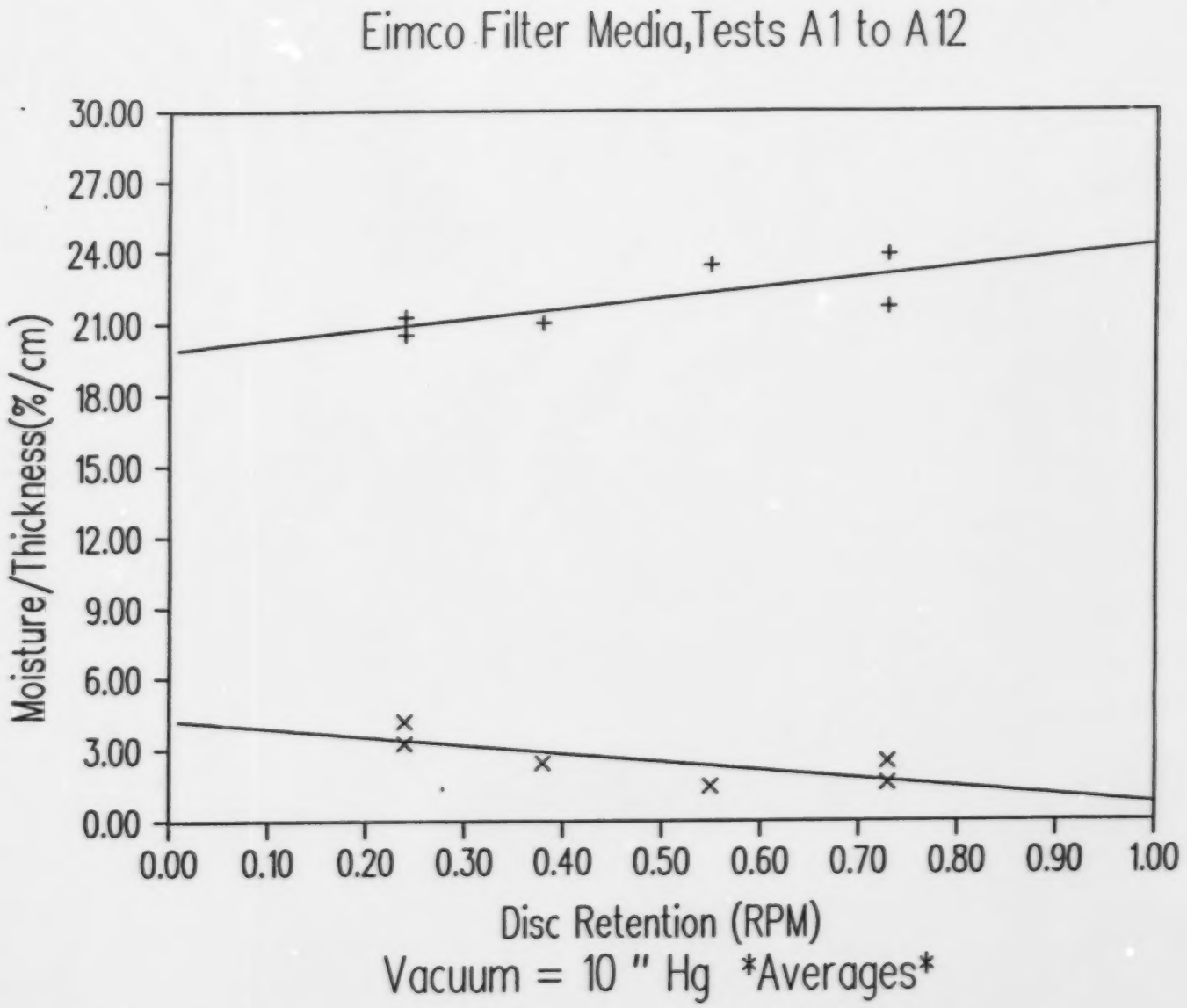

Figure A16 - Cake moisture/thickness vs disc retention at vacuum (10) for tests A1 to A12, Part 1

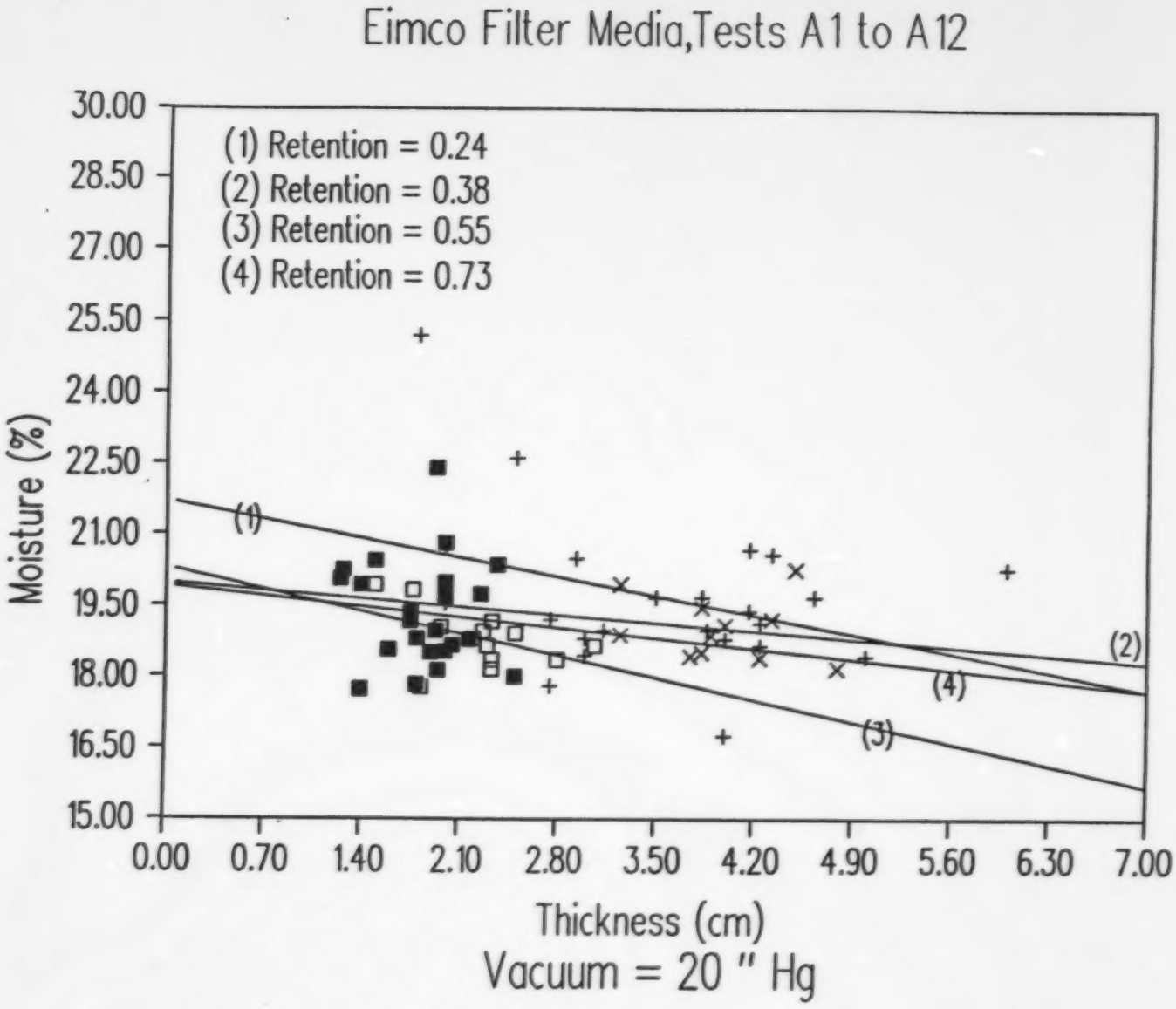

Figure A17 - Cake moisture vs thickness at vacuum (20) for tests A1 to A12, Part 1

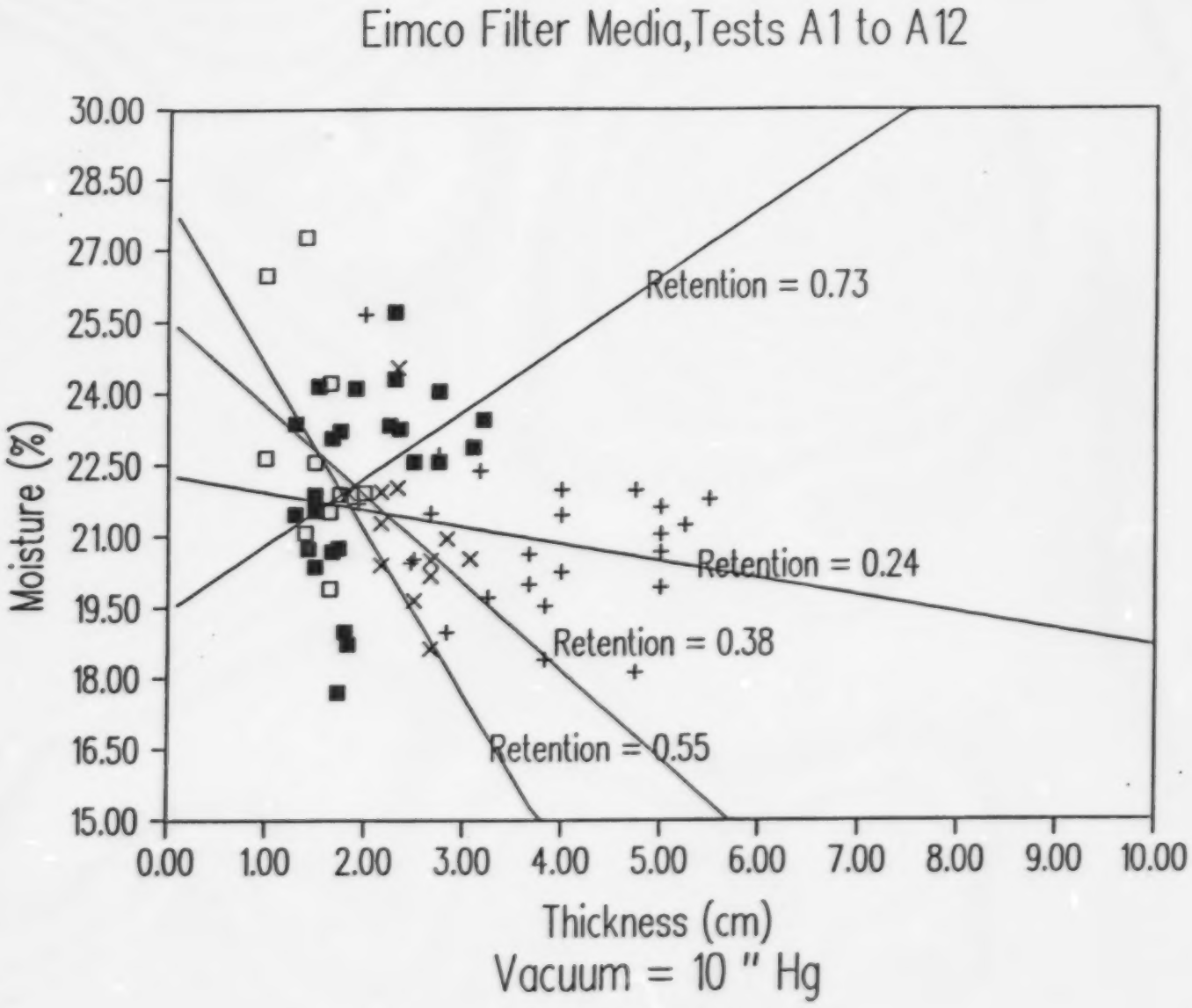

Figure A18 - Cake moisture vs thickness at vacuum (10) for tests A1 to A12, Part 1

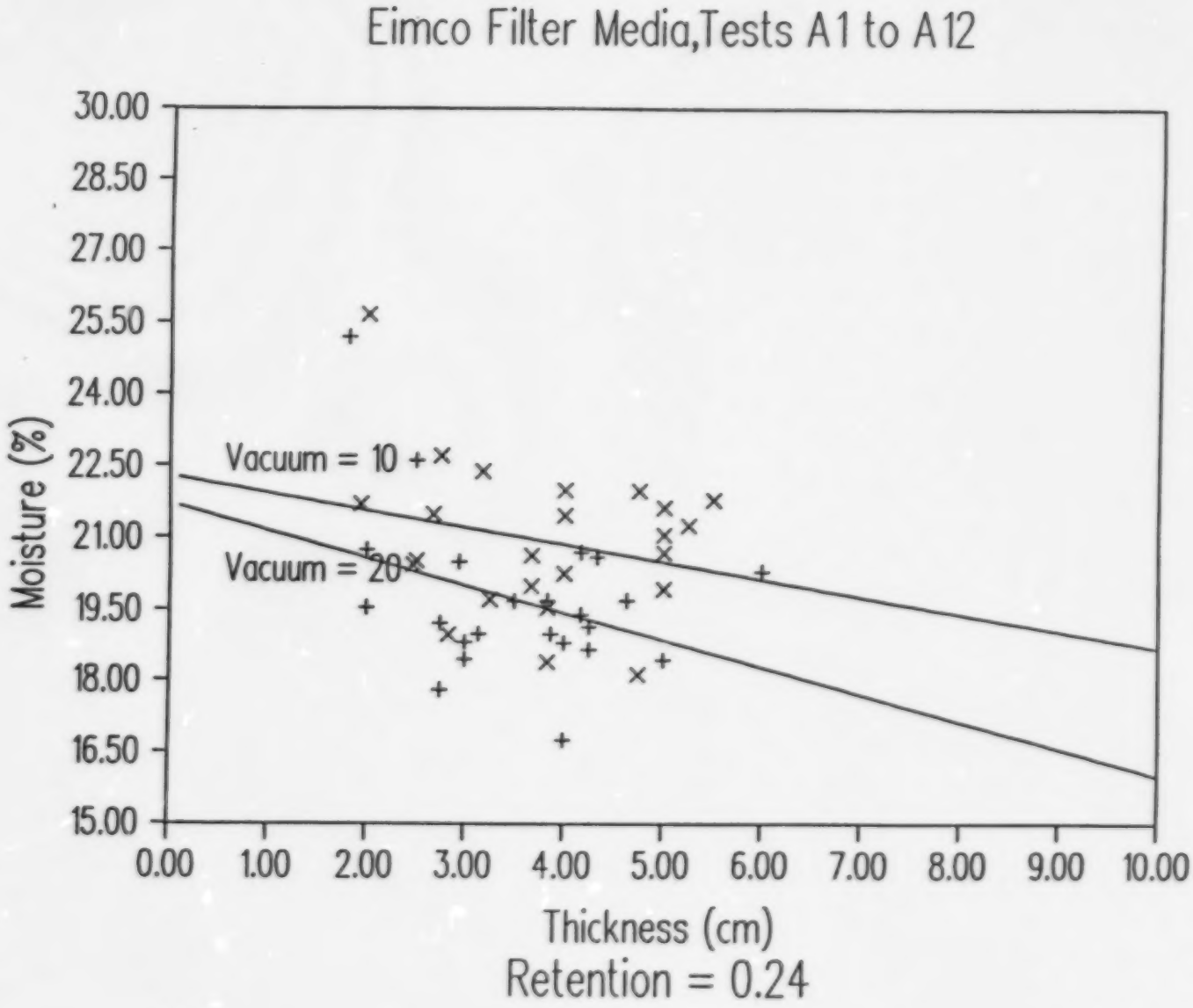

Figure A19 - Cake moisture vs thickness at disc retention (0.24) for tests A1 to A12, Part 1

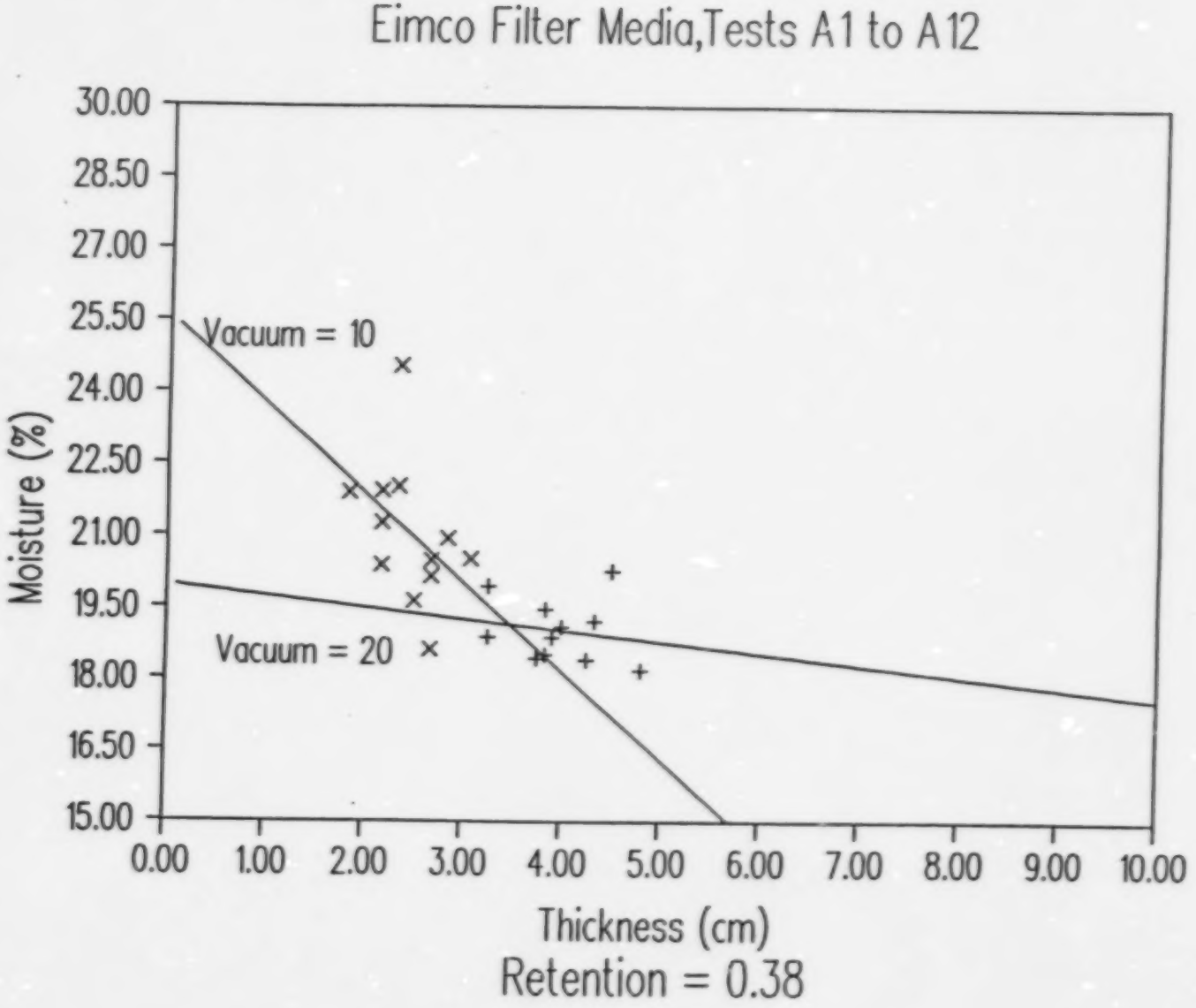

Figure A20 - Cake moisture vs thickness at disc retention (0.38) for tests A1 to A12, Part 1

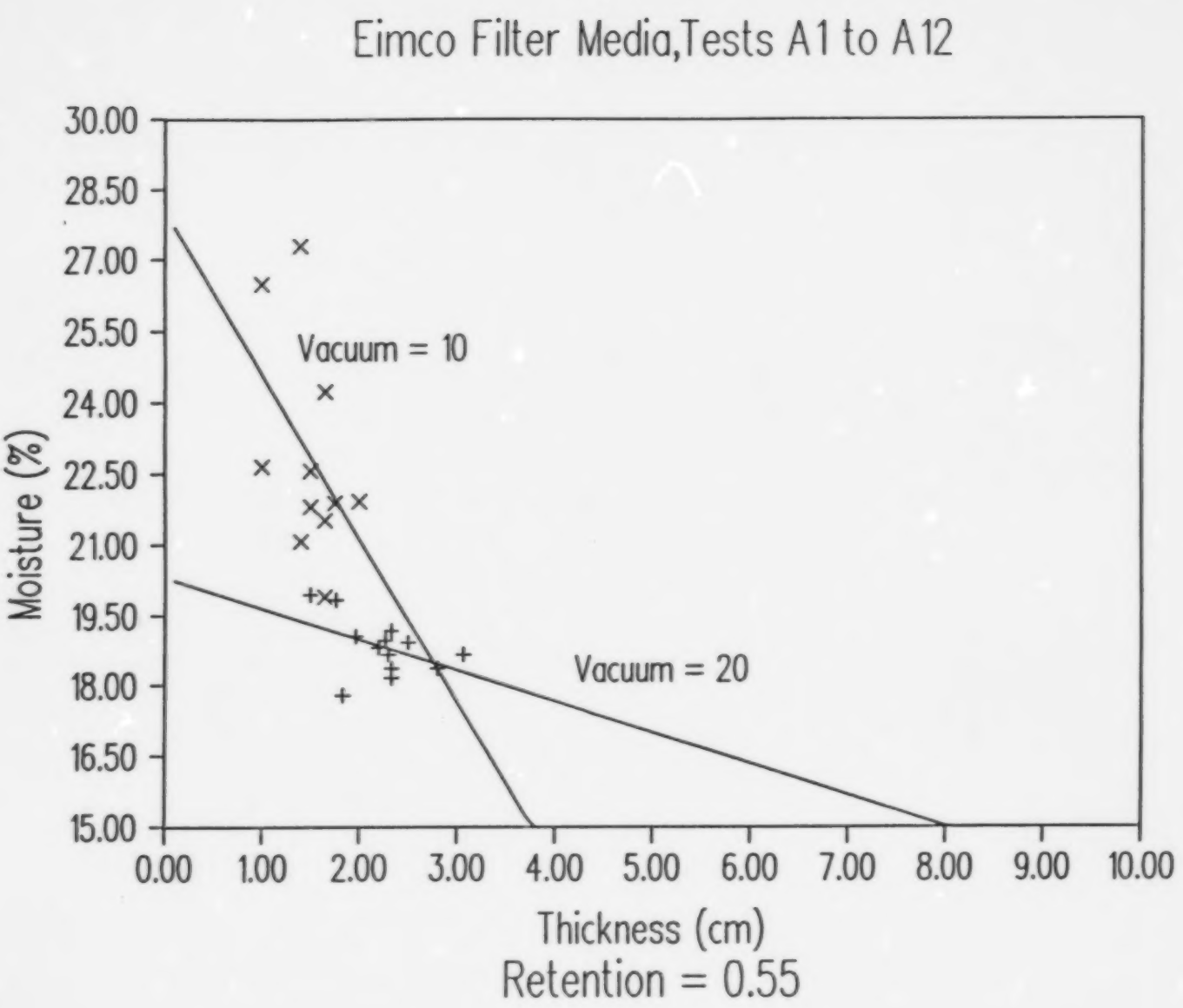

Figure A21 - Cake moisture vs thickness at disc retention (0.55) for tests A1 to A12, Part 1

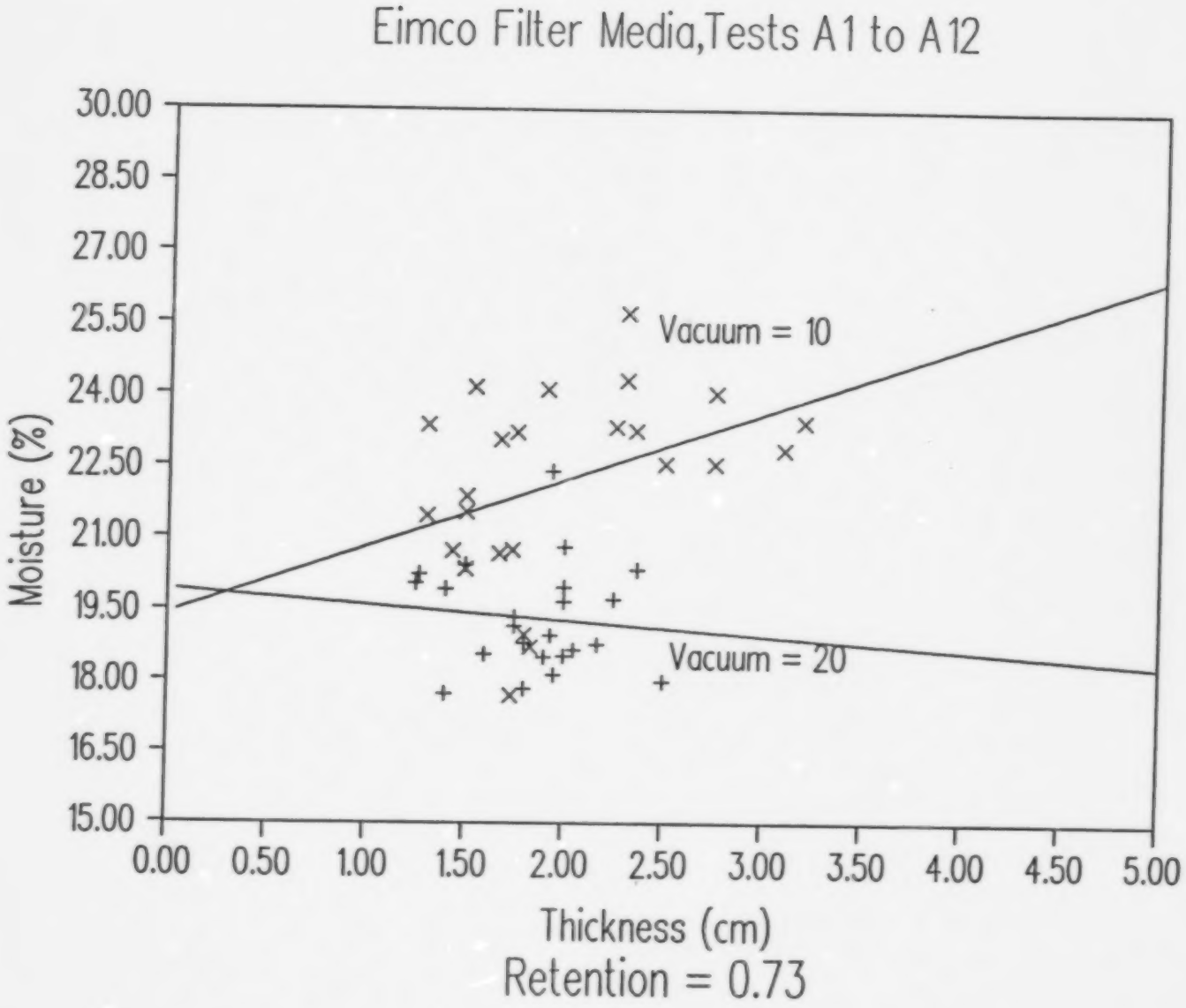

Figure A22 - Cake moisture vs thickness at disc retention (0.73) for tests A1 to A12, Part 1

APPENDIX B

Tables B1 to B5

Figures B1 to B16

Table B1 - Average results of tests A13 to A18 (a and b), Part II

EIMCO FILTER MEDIA						
TARGET VACUUMS:	FORMING	20		15		10
	DRYING	20		15		10
RETENTION TIME (RPM)						
0.73	Test ID	A13a	A18a	A14a	A17a	A16a
	Feed Solids (%)	38.5	19.9	35.6	17.6	25.8
	Filtrate Solids (%)	0.9	0.4	1.2	0.4	0.8
	Clcd.Floc Dosage (g/Tonne)	0.00	0.00	0.00	0.00	0.00
	Cake Solids (%)	78.4	79.8	78.8	78.9	76.5
	Cake Thickness (cm)	4.5	4.3	4.7	2.8	2.9
	Discharge Qc (kg/min)	82.7	70.5	66.6	37.2	46.1
	Qf (kg/min)	168.1	288.0	149.6	170.8	142.9
	Qk (kg/min)	85.4	217.5	82.9	133.6	96.8
	Recovery (%)	98.8	98.4	98.6	98.2	97.9
	Forming Vaccuum ("Hg)	19.6	20.8	15.5	16.1	9.1
	Drying Vaccuum ("Hg)	18.4	19.6	15.1	14.3	8.8
0.55	Test ID	A15a				
	Feed Solids (%)	23.2				
	Filtrate Solids (%)	0.8				
	Clcd.Floc Dosage (g/Tonne)	0.00				
	Cake Solids (%)	79.9				
	Cake Thickness (cm)	3.3				
	Discharge Qc (kg/min)	39.4				
	Qf (kg/min)	138.2				
	Qk (kg/min)	98.8				
	Recovery (%)	98.1				
	Forming Vaccuum ("Hg)	21.3				
	Drying Vaccuum ("Hg)	20.0				

Table B1 Continued

NITEX FILTER MEDIA						
TARGET VACUUMS:	FORMING	20		15		10
	DRYING	20		15		10
RETENTION TIME (RPM)						
0.73	Test ID	A13b	A18b	A14b	A17b	A16b
	Feed Solids (%)	38.5	19.9	35.7	17.6	25.8
	Filtrate Solids (%)	0.8	0.4	1.2	0.4	0.8
	Clcd.Floc Dosage (g/Tonne)	0.00	0.00	0.00	0.00	0.00
	Cake Solids (%)	78.7	80.1	78.5	78.3	77.4
	Cake Thickness (cm)	4.9	4.6	5.3	3.0	3.2
	Discharge Qc (kg/min)	82.7	58.9	69.6	36.2	45.0
	Qf (kg/min)	169.8	243.0	153.2	163.7	141.3
	Qk (kg/min)	87.2	184.1	84.5	127.5	96.3
	Recovery (%)	98.9	98.4	98.2	98.2	97.9
	Forming Vaccuum ("Hg)	19.6	20.4	15.5	16.2	9.1
	Drying Vaccuum ("Hg)	18.4	19.2	15.1	14.3	8.8
0.55	Test ID	A15b				
	Feed Solids (%)	23.2				
	Filtrate Solids (%)	0.6				
	Clcd.Floc Dosage (g/Tonne)	0.00				
	Cake Solids (%)	80.8				
	Cake Thickness (cm)	3.9				
	Discharge Qc (kg/min)	37.8				
	Qf (kg/min)	134.8				
	Qk (kg/min)	97.0				
	Recovery (%)	98.1				
	Forming Vaccuum ("Hg)	21.5				
	Drying Vaccuum ("Hg)	20.1				

Table B2 - Test averages and standard deviations for tests A13 to A18 (a and b), Part II

Test ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
TEST AVERAGES												
A13a	38.5	0.00	0.9	78.4	4.5	82.7	168.1	85.4	98.8	19.6	18.4	0.73
A14a	35.6	0.00	1.2	78.8	4.7	66.6	149.6	82.9	98.6	15.5	15.1	0.73
A15a	23.2	0.00	0.6	79.9	3.3	39.4	138.2	98.8	98.1	21.3	20.0	0.56
A16a	25.8	0.00	0.8	76.5	2.9	46.1	142.9	96.8	97.9	9.1	8.8	0.73
A17a	17.6	0.00	0.4	78.9	2.8	37.2	170.8	133.6	98.2	16.1	14.3	0.73
A18a	19.9	0.00	0.4	79.8	4.3	70.5	288.0	217.5	98.4	20.8	19.6	0.73
TEST STANDARD DEVIATIONS												
A13a	1.6	0.00	0.2	2.9	1.1	11.6	27.4	16.8	0.3	2.1	2.2	0.00
A14a	2.0	0.00	0.2	1.4	0.5	12.9	28.3	16.0	0.9	1.7	1.3	0.00
A15a	0.5	0.00	0.3	1.4	0.4	3.9	14.2	10.4	0.9	0.9	1.1	0.00
A16a	4.1	0.00	0.2	1.4	0.7	4.0	23.1	22.4	0.6	0.8	1.5	0.00
A17a	2.4	0.00	0.2	1.1	0.7	7.7	29.2	23.8	1.1	1.5	1.5	0.00
A18a	1.8	0.00	0.1	0.8	0.8	14.7	56.2	42.8	0.4	1.2	1.1	0.00

EIMCO FILTER MEDIA

Table B2 Continued

Test ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
TEST AVERAGES												
A13b	38.5	0.8	0.00	78.7	4.9	82.7	169.8	87.2	98.9	19.6	18.4	0.73
A14b	35.7	1.2	0.00	78.5	5.3	69.6	153.2	84.5	98.2	15.5	15.1	0.73
A15b	23.2	0.6	0.00	60.8	3.9	37.8	134.8	97.0	98.1	21.5	20.1	0.56
A16b	25.8	0.8	0.00	77.4	3.2	45.0	141.3	96.3	97.9	9.1	8.8	0.73
A17b	17.6	0.4	0.00	78.3	3.0	36.2	163.7	127.5	98.2	16.2	14.3	0.73
A18b	19.9	0.4	0.00	80.1	4.6	58.9	243.0	184.1	98.4	20.4	19.2	0.73
TEST STANDARD DEVIATIONS												
A13b	1.6	0.4	0.00	1.3	0.8	11.6	26.1	15.6	0.5	2.1	2.2	0.00
A14b	2.1	0.2	0.00	1.6	0.5	16.2	21.8	14.3	0.4	1.7	1.3	0.00
A15b	0.5	0.3	0.00	2.6	0.3	2.7	11.4	8.7	0.9	1.2	1.0	0.00
A16b	4.1	0.2	0.00	1.0	0.6	4.6	29.7	26.3	0.6	0.8	1.5	0.00
A17b	2.4	0.2	0.00	1.1	0.8	8.1	26.5	20.3	1.1	1.6	1.5	0.00
A18b	1.8	0.1	0.00	1.1	0.7	12.7	57.0	45.6	0.4	1.2	0.9	0.00

NITEX FILTER MEDIA

Table B3 - Filter cake moistures for tests A13 to A18 (a and b), Part II

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A13a	0	1	20.4		79.6		3.9	
A13a	0	2	21.3	20.9	78.7	79.1	4.5	4.2
A13a	5	3	20.9		79.1		2.2	
A13a	5	4	21.1	21.0	78.9	79.0	2.5	2.4
A13a	10	5	20.4		79.6		4.0	
A13a	10	6	20.5	20.4	79.5	79.6	4.5	4.3
A13a	15	7	21.2		78.8		6.0	
A13a	15	8	20.8	21.0	79.2	79.0	5.0	5.5
A13a	20	9	20.0		80.0		6.0	
A13a	20	10	18.7	19.3	81.3	80.7	5.5	5.8
A13a	25	11	19.3		80.7		3.0	
A13a	25	12	19.3	19.3	80.7	80.7	3.5	3.3
A13a	30	13	21.9		78.1		6.0	
A13a	30	14	21.0	21.5	79.0	78.5	5.0	5.5
A13a	35	15	21.2		78.8		5.5	
A13a	35	16	21.1	21.1	78.9	78.9	5.5	5.5
A13a	40	17	36.7		63.3		6.5	
A13a	40	18	23.1	29.9	76.9	70.1	6.5	6.5
A13a	45	19	20.7		79.3		4.0	
A13a	45	20	20.9	20.8	79.1	79.2	5.0	4.5
A13a	50	21	30.5		69.5		3.5	
A13a	50	22	20.9	25.7	79.1	74.3	4.0	3.8
A13a	55	23	19.1		80.9		3.5	
A13a	55	24	19.7	19.4	80.3	80.6	4.0	3.8
A13a	60	25	20.4		79.6		3.5	
A13a	60	26	20.5	20.5	79.5	79.5	3.5	3.5

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A14a	0	1	20.1	20.1	79.9	79.9	4.0	5.0
A14a	10	2	19.4	19.7	80.6	80.3	6.0	5.5
A14a	15	3	18.6	19.0	81.4	81.0	5.0	5.4
A14a	20	4	20.6	19.6	79.4	80.4	5.7	4.8
A14a	30	5	22.0	21.3	78.0	78.7	3.8	3.9
A14a	35	6	22.6	22.3	77.4	77.7	4.0	4.5
A14a	40	7	23.5	23.0	76.5	77.0	5.0	4.5
A14a	45	8	22.0	22.7	78.0	77.3	4.0	4.0
A14a	50	9	21.6	21.8	78.4	78.2	4.0	4.5
A14a	55	10	21.7	21.7	78.3	78.3	5.0	5.0
A14a	60	11	21.5	21.6	78.5	78.4	5.0	5.0
A15a	0	1	19.8	19.8	80.2	80.2	3.3	3.3
A15a	5	2	21.4	21.4	78.6	78.6	3.0	3.0
A15a	10	3	20.1	20.1	79.9	79.9	3.0	3.0
A15a	15	4	19.7	19.7	80.3	80.3	3.5	3.5
A15a	20	5	20.9	20.9	79.1	79.1	3.3	3.3
A15a	25	6	21.1	21.1	78.9	78.9	3.3	3.3
A15a	30	7	19.7	19.7	80.3	80.3	3.3	3.3
A15a	35	8	20.3	20.3	79.7	79.7	3.0	3.0
A15a	40	9	20.3	20.3	79.7	79.7	2.8	2.8
A15a	45	10	20.3	20.3	79.7	79.7	3.3	3.3
A15a	50	12	21.4	21.4	78.6	78.6	4.3	4.3
A15a	55	13	20.2	20.2	79.8	79.8	4.0	4.0
A15a	60	14	15.6	15.6	84.4	84.4	3.3	3.3

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A16a	0	1	22.6	22.6	77.4	77.4	1.3	1.3
A16a	5	2	21.9	21.9	78.1	78.1	2.0	2.0
A16a	10	3	21.8	21.8	78.2	78.2	2.8	2.8
A16a	15	4	24.2	24.2	75.8	75.8	3.3	3.3
A16a	20	5	25.6	25.6	74.4	74.4	2.5	2.5
A16a	25	6	26.1	26.1	73.9	73.9	3.5	3.5
A16a	30	7	22.8	22.8	77.2	77.2	3.5	3.5
A16a	35	8	23.0	23.0	77.0	77.0	2.0	2.0
A16a	40	9	25.1	25.1	74.9	74.9	3.3	3.3
A16a	45	10	24.0	24.0	76.0	76.0	3.8	3.8
A16a	50	12	22.9	22.9	77.1	77.1	2.8	2.8
A16a	55	13	23.9	23.9	76.1	76.1	3.3	3.3
A16a	60	14	21.1	21.1	78.9	78.9	3.3	3.3
A17a	0	28	19.0	19.0	81.0	81.0	2.8	2.8
A17a	5	29	19.8	19.8	80.2	80.2	2.3	2.3
A17a	10	30	20.0	20.0	80.0	80.0	2.5	2.5
A17a	15	31	21.1	21.1	78.9	78.9	2.8	2.8
A17a	20	32	21.6	21.6	78.4	78.4	2.0	2.0
A17a	25	33	23.1	23.1	76.9	76.9	1.5	1.5
A17a	30	34	20.8	20.8	79.2	79.2	2.8	2.8
A17a	35	35	21.6	21.6	78.4	78.4	4.0	4.0
A17a	40	36	22.9	22.9	77.1	77.1	3.5	3.5
A17a	45	37	21.5	21.5	78.5	78.5	2.5	2.5
A17a	50	38	20.4	20.4	79.6	79.6	2.5	2.5

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A17a	55	39	21.7	21.7	78.3	78.3	3.8	3.8
A17a	60	40	20.5	20.5	79.5	79.5	3.5	3.5
A18a	0	28	21.1	21.1	78.9	78.9	3.5	3.5
A18a	5	29	19.9	19.9	80.1	80.1	3.8	3.8
A18a	10	30	20.3	20.3	79.7	79.7	3.0	3.0
A18a	15	31	19.1	19.1	80.9	80.9	4.8	4.8
A18a	20	32	20.6	20.6	79.4	79.4	3.3	3.3
A18a	25	33	20.7	20.7	79.3	79.3	5.5	5.5
A18a	30	34	19.4	19.4	80.6	80.6	4.3	4.3
A18a	35	35	20.5	20.5	79.5	79.5	5.3	5.3
A18a	40	36	19.3	19.3	80.7	80.7	5.5	5.5
A18a	45	37	21.4	21.4	78.6	78.6	4.5	4.5
A18a	50	38	19.0	19.0	81.0	81.0	4.5	4.5
A18a	55	39	21.1	21.1	78.9	78.9	4.0	4.0
A18a	60	40	20.0	20.0	80.0	80.0	4.3	4.3

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A13b	0	1	20.6		79.4		3.8	
A13b	0	2	22.0	21.3	78.0	78.7	4.0	3.9
A13b	5	3	20.3		79.7		3.0	
A13b	5	4	20.4	20.3	79.6	79.7	4.0	3.5
A13b	10	5	20.9		79.1		5.0	
A13b	10	6	21.7	21.3	78.3	78.7	4.8	4.9
A13b	15	7	12.3		87.7		6.0	
A13b	15	8	31.9	22.1	68.1	77.9	6.5	6.3
A13b	20	9	23.1		76.9		4.0	
A13b	20	10	22.1	22.6	77.9	77.4	4.0	4.0
A13b	25	11	20.8		79.2		5.5	
A13b	25	12	21.6	21.2	78.4	78.8	5.5	5.5
A13b	30	13	21.5		78.5		4.5	
A13b	30	14	22.2	21.9	77.8	78.1	4.5	4.5
A13b	35	15	21.2		78.8		5.0	
A13b	35	16	14.8	18.0	85.2	82.0	5.0	5.0
A13b	40	17	21.4		78.6		7.0	
A13b	40	18	26.8	24.1	73.2	75.3	6.0	6.5
A13b	45	19	21.4		78.6		5.5	
A13b	45	20	21.2	21.3	78.8	78.7	4.5	5.0
A13b	50	21	21.2		78.8		4.5	
A13b	50	22	21.3	21.3	78.7	78.7	4.5	4.5
A13b	55	23	20.7		79.3		5.5	
A13b	55	24	19.9	20.3	80.1	79.7	5.0	5.3
A13b	60	25	20.2		79.8		5.0	
A13b	60	26	21.2	20.7	78.8	79.3	4.5	4.8

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A14b	0	1	22.0	22.0	78.0	78.0	4.8	5.6
A14b	10	2	20.2	21.1	79.8	78.9	6.3	6.2
A14b	15	3	20.4	20.3	79.6	79.7	6.0	5.8
A14b	20	4	22.3	21.4	77.7	78.6	5.5	5.0
A14b	30	5	19.4	20.8	80.6	79.2	4.5	4.8
A14b	35	6	22.4	20.9	77.6	79.1	5.0	5.5
A14b	40	7	24.2	23.3	75.8	76.7	6.0	5.5
A14b	45	8	23.2	23.7	76.8	76.3	5.0	4.5
A14b	50	9	19.8	21.5	80.2	78.5	4.0	5.0
A14b	55	10	23.3	21.6	76.7	78.4	6.0	5.5
A14b	60	11	19.7	21.5	80.3	78.5	5.0	5.0
A15b	0	1	18.4	18.4	81.6	81.6	4.3	4.3
A15b	5	2	19.6	19.6	80.4	80.4	4.3	4.3
A15b	10	3	21.9	21.9	78.1	78.1	3.8	3.8
A15b	15	4	20.3	20.3	79.7	79.7	4.0	4.0
A15b	20	5	17.8	17.8	82.2	82.2	4.3	4.3
A15b	25	6	19.2	19.2	80.8	80.8	4.0	4.0
A15b	30	7	18.8	18.8	81.2	81.2	4.5	4.5
A15b	35	8	21.2	21.2	78.8	78.8	3.3	3.3
A15b	40	9	19.3	19.3	80.7	80.7	3.5	3.5
A15b	45	10	22.8	22.8	77.2	77.2	3.8	3.8
A15b	50	11	18.7	18.7	81.3	81.3	3.5	3.5
A15b	55	13	20.0	20.0	80.0	80.0	3.8	3.8
A15b	60	14	11.5	11.5	88.5	88.5	3.8	3.8

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A16b	0	15	21.9	21.9	78.1	78.1	3.0	3.0
A16b	5	16	21.8	21.8	78.2	78.2	2.0	2.0
A16b	10	17	22.6	22.6	77.4	77.4	3.8	3.8
A16b	15	18	22.8	22.8	77.2	77.2	3.8	3.8
A16b	20	19	24.6	24.6	75.4	75.4	3.3	3.3
A16b	25	20	22.6	22.6	77.4	77.4	3.0	3.0
A16b	30	21	24.3	24.3	75.7	75.7	3.5	3.5
A16b	35	22	21.6	21.6	78.4	78.4	3.5	3.5
A16b	40	23	22.4	22.4	77.6	77.6	4.0	4.0
A16b	45	24	21.7	21.7	78.3	78.3	2.5	2.5
A16b	50	25	23.8	23.8	76.2	76.2	3.8	3.8
A16b	55	26	21.9	21.9	78.1	78.1	2.3	2.3
A16b	60	27	21.8	21.8	78.2	78.2	2.8	2.8
A17b	0	28	21.1	21.1	78.9	78.9	2.5	2.5
A17b	5	29	21.0	21.0	79.0	79.0	2.8	2.8
A17b	10	30	20.9	20.9	79.1	79.1	3.0	3.0
A17b	15	31	19.9	19.9	80.1	80.1	3.3	3.3
A17b	20	32	19.8	19.8	80.2	80.2	2.0	2.0
A17b	25	33	24.0	24.0	76.0	76.0	1.5	1.5
A17b	30	34	22.6	22.6	77.4	77.4	2.0	2.0
A17b	35	35	22.4	22.4	77.6	77.6	3.8	3.8
A17b	40	36	21.8	21.8	78.2	78.2	3.8	3.8
A17b	45	37	22.7	22.7	77.3	77.3	4.0	4.0
A17b	50	38	21.8	21.8	78.2	78.2	3.5	3.5

Table B3 Continued

Sample Id			Moisture content %	Avg. Moisture Content %	Solids content %	Avg. Solids Content %	Cake Thickness (cm)	Avg Cake Thickness (cm)
A17b	55	39	22.2	22.2	77.8	77.8	3.5	3.5
A17b	60	40	22.1	22.1	77.9	77.9	3.8	3.8
A18b	0	41	19.6	19.6	80.4	80.4	2.8	2.8
A18b	5	42	19.9	19.9	80.1	80.1	3.5	3.5
A18b	10	43	18.9	18.9	81.1	81.1	4.8	4.8
A18b	15	44	18.9	18.9	81.1	81.1	4.3	4.3
A18b	20	45	20.9	20.9	79.1	79.1	5.0	5.0
A18b	25	46	19.5	19.5	80.5	80.5	5.0	5.0
A18b	30	47	22.7	22.7	77.3	77.3	4.0	4.0
A18b	35	48	19.7	19.7	80.3	80.3	5.5	5.5
A18b	40	49	18.8	18.8	81.2	81.2	4.8	4.8
A18b	45	50	21.7	21.7	78.3	78.3	4.5	4.5
A18b	50	51	18.7	18.7	81.3	81.3	4.8	4.8
A18b	55	52	20.2	20.2	79.8	79.8	5.5	5.5
A18b	60	53	19.6	19.6	80.4	80.4	5.0	5.0

Table B4 - Process data for tests A13 to A18 (a and b), Part II

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A13a	0					
A13a	5					
A13a	10	0.7	39.9	77.1	251.59	133.16
A13a	15					
A13a	20	1.1	40.7	86.5	216.36	108.63
A13a	25					
A13a	30	0.7	39.0	77.3	234.84	116.69
A13a	35					
A13a	40	1.0	38.1	88.3	184.50	96.44
A13a	45					
A13a	50	0.9	36.1	64.6	176.85	96.60
A13a	55					
A13a	60	1.1	37.0	102.1	183.48	103.41
A14a	0	1.5	38.0	71.7		
A14a	10	0.9	36.4	85.7	119.80	67.86
A14a						
A14a	20	1.5	36.4	53.5	124.39	60.84
A14a	30	1.1	37.8	67.4	116.49	79.50
A14a	35					
A14a	40	1.2	32.1	63.8	123.84	71.84
A14a	45					
A14a	50	1.0	33.8	45.5	109.40	64.49
A14a	55					
A14a	60	1.0	34.8	78.9	117.23	71.29
A15a	0	0.6	22.7	40.8	169.19	78.55

Table B4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A15a						
A15a	10	0.7	22.3	40.9	151.66	66.86
A15a						
A15a	20	0.7	23.9	45.1	151.95	68.71
A15a						
A15a	30	0.8	23.1	40.7	148.82	74.29
A15a						
A15a	40	0.9	23.5	36.0	142.53	73.35
A15a						
A15a	50	0.8	23.5	32.9	147.79	81.71
A15a						
A15a						
A16a	0	0.4	21.3	42.0	175.90	56.73
A16a						
A16a	10	0.8	23.3	49.8	171.42	60.47
A16a						
A16a	20	1.0	31.0	49.5	170.32	44.14
A16a						
A16a	30	0.9	24.3	50.2	167.85	54.49
A16a						
A16a	40	0.9	32.0	44.7	167.63	46.65
A16a						
A16a	50	1.0	22.8	40.1	165.16	57.77
A16a						
A16a						

Table B4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A17a	0	0.4	20.4	36.7	173.87	88.09
A17a						
A17a	10	0.7	19.6	48.1	154.21	119.59
A17a						
A17a	20	0.5	13.1	24.6	165.16	102.16
A17a						
A17a	30	0.4	16.2	44.6	189.05	123.76
A17a						
A17a	40	0.4	18.4	32.8	151.74	101.41
A17a						
A17a	50	0.7	17.9	36.4	152.12	98.44
A17a						
A17a	60					
A18a	0	0.4	16.5	48.3	150.69	67.04
A18a						
A18a	10	0.7	21.9	53.9	181.01	89.63
A18a						
A18a	20	0.3	21.2	78.6	184.30	86.22
A18a						
A18a	30	0.3	20.9	86.8	175.99	71.89
A18a						
A18a	40	0.4	19.1	84.9	170.34	60.64
A18a						
A18a	50	0.4	19.9	70.5	152.12	73.28
A18a						
A18a	60					

Table B4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A13b	0					
A13b	5					
A13b	10	0.7	39.9	77.1	251.59	133.16
A13b	15					
A13b	20	1.1	40.7	86.5	216.36	108.63
A13b	25					
A13b	30	0.8	39.0	77.3	234.84	116.69
A13b	35					
A13b	40	1.0	38.1	88.3	184.50	96.44
A13b	45					
A13b	50	0.9	36.1	64.6	176.85	96.60
A13b	55					
A13b	60	1.1	37.0	102.1	183.48	103.41
A14b	0	1.0	38.0	104.5		
A14b	10	1.5	38.0	70.0	119.80	67.86
A14b	15					
A14b	20	0.9	36.4	80.9	124.39	60.84
A14b	30	1.1	37.8	79.1	116.49	79.50
A14b	35	1.5	36.3	53.5	116.49	79.50
A14b	40	1.2	32.1	44.2	123.84	71.84
A14b	45	1.1	37.8	67.4	123.84	71.84
A14b	50	1.0	33.8	55.6	109.40	64.49
A14b	55	1.2	32.1	63.8	109.40	64.49
A14b	60	1.0	33.8	76.6	117.23	71.27
A15b	0	0.3	22.7	42.6	169.19	78.55

Table B4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A15b						
A15b	10	0.7	22.3	35.1	151.66	66.86
A15b						
A15b	20	0.7	23.9	38.5	151.95	68.71
A15b						
A15b	30	0.8	23.1	38.3	148.82	74.29
A15b						
A15b	40	0.9	23.5	34.3	142.53	73.35
A15b						
A15b	50	0.8	23.5	38.2	147.79	81.71
A15b						
A15b						
A16b	0	0.4	21.3	46.6	175.90	56.73
A16b						
A16b	10	0.8	23.3	43.2	171.42	60.47
A16b						
A16b	20	1.0	31.0	45.6	170.32	44.14
A16b						
A16b	30	0.9	24.3	52.2	167.85	54.49
A16b						
A16b	40	0.9	32.0	36.9	167.63	46.65
A16b						
A16b	50	1.0	22.8	45.5	165.16	57.77
A16b						
A16b						

Table B4 Continued

Test ID	Test Time (min)	Filtrate Solids %	Feed Solids %	Discharge rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A17b	0	0.4	20.4	39.8	173.87	88.09
A17b						
A17b	10	0.7	19.6	33.7	154.21	119.59
A17b						
A17b	20	0.5	13.1	20.9	165.16	102.16
A17b						
A17b	30	0.4	16.2	38.5	189.05	123.76
A17b						
A17b	40	0.4	18.4	47.7	151.74	101.41
A17b						
A17b	50	0.7	17.9	36.8	152.12	98.44
A17b						
A17b	60					
A18b	0	0.4	16.5	50.2	150.69	67.04
A18b						
A18b	10	0.7	21.9	43.5	181.01	89.63
A18b						
A18b	20	0.3	21.2	62.6	184.30	86.22
A18b						
A18b	30	0.3	20.9	52.1	175.99	71.89
A18b						
A18b	40	0.4	19.1	61.9	170.34	60.64
A18b						
A18b	50	0.4	19.9	83.2	152.12	73.28
A18b						
A18b	60					

Table B5 - Combined test results for tests A13 to A18 (a and b), Part II

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A13a	0			0.00	79.1	4.2					20	20	0.73
A13a	5			0.00	79.0	2.4					22	21	0.73
A13a	10	39.9	0.7	0.00	79.6	4.3	77.1	155.3	78.2	99.1	21	21	0.73
A13a	15			0.00	79.0	5.5					20	20	0.73
A13a	20	40.7	1.1	0.00	80.7	5.8	86.5	173.6	87.1	98.7	21	20	0.73
A13a	25			0.00	80.7	3.3					23	21	0.73
A13a	30	39.0	0.7	0.00	78.5	5.5	77.3	157.1	79.8	99.1	20	18	0.73
A13a	35			0.00	78.9	5.5					20	18	0.73
A13a	40	38.1	1.0	0.00	70.1	6.5	88.3	164.6	76.3	98.7	20	18	0.73
A13a	45			0.00	79.2	4.5					17	15	0.73
A13a	50	36.1	0.9	0.00	74.3	3.8	64.6	134.6	70.0	98.7	17	15	0.73
A13a	55			0.00	80.6	3.8					19	17	0.73
A13a	60	37.0	1.1	0.00	79.5	3.5	102.1	223.4	121.2	98.3	15	15	0.73
A14a	0	38.0	1.5	0.00	79.9	5.0	71.7	153.8	82.1	97.9	17	15	0.73
A14a	10	36.4		0.00	80.6	5.5	85.7	190.0	104.2	100.0	19	17	0.73
A14a	15		1.5	0.00	81.4	5.4					18	18	0.73
A14a	20	36.4	1.5	0.00	79.4	4.8	53.5	119.5	66.0	97.8	16	15	0.73
A14a	30	37.8	1.1	0.00	78.0	3.9	67.4	141.3	73.9	98.5	14	13	0.73
A14a	35			0.00	77.4	4.5					14	14	0.73
A14a	40	32.1	1.2	0.00	76.5	4.5	63.8	155.7	91.9	97.8	14	15	0.73
A14a	45		1.0	0.00	78.0	4.0					14	14	0.73
A14a	50	33.8		0.00	78.4	4.5	45.5	105.6	60.1	100.0	15	15	0.73
A14a	55			0.00	78.3	5.0					15	15	0.73
A14a	60	34.8	1.0	0.00	78.5	5.0	78.9	181.1	102.2	98.4	15	15	0.73
A15a	0	22.7	0.6	0.00	80.2	3.3	40.8	147.0	106.2	98.2	22	20	0.56

Table B5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A15a	5			0.00	78.6	3.0					22	20	0.56
A15a	10	22.3	0.0	0.00	79.9	3.0	40.9	146.7	105.8	100.0	22	22	0.56
A15a	15			0.00	80.3	3.5					22	22	0.56
A15a	20	23.9	0.7	0.00	79.1	3.3	45.1	152.6	107.5	97.8	22	20	0.56
A15a	25			0.00	78.9	3.3					21	18	0.56
A15a	30	23.1	0.8	0.00	80.3	3.3	40.7	144,7	104.0	97.7	22	20	0.56
A15a	35			0.00	79.7	3.0					22	20	0.56
A15a	40	23.5	0.9	0.00	79.7	2.8	36.0	125.3	89.4	97.3	22	20	0.56
A15a	45			0.00	79.7	3.3					20	20	0.56
A15a	50	23.5	0.8	0.00	78.6	4.3	32.9	112.9	80.0	97.7	20	20	0.56
A15a	55			0.00	79.8	4.0					20	20	0.56
A15a	60			0.00	84.4	3.3					20	18	0.56
A16a	0	21.3	0.4	0.00	77.4	1.3	42.0	154.9	112.9	98.7	8	6	0.73
A16a	5			0.00	78.1	2.0					9	8	0.73
A16a	10	23.3	0.8	0.00	78.2	2.8	49.8	171.4	121.6	97.5	9	8	0.73
A16a	15			0.00	75.8	3.3					10	9	0.73
A16a	20	31.0	1.0	0.00	74.4	2.5	49.5	121.1	71.6	98.1	8	6	0.73
A16a	25			0.00	73.9	3.5					8	10	0.73
A16a	30	24.3	0.9	0.00	77.2	3.5	50.2	163.6	113.3	97.6	8	8	0.73
A16a	35			0.00	77.0	2.0					9	9	0.73
A16a	40	32.0	0.9	0.00	74.9	3.3	44.7	106.4	61.7	98.4	10	11	0.73
A16a	45			0.00	76.0	3.8					10	10	0.73
A16a	50	22.8	1.0	0.00	77.1	2.8	40.1	139.9	99.8	96.9	9	10	0.73
A16a	55			0.00	76.1	3.3					10	10	0.73
A16a	60			0.00	78.9	3.3					10	10	0.73

Table B5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A17a	0	20.4	0.4	0.00	81.0	2.8	36.7	148.0	111.3	98.6	15	15	0.73
A17a	5			0.00	80.2	2.3					18	15	0.73
A17a	10	19.6	0.0	0.00	80.0	2.5	48.1	196.2	148.0	100.0	18	15	0.73
A17a	15			0.00	78.9	2.8					18	15	0.73
A17a	20	13.1	0.5	0.00	78.4	2.0	24.6	152.2	127.6	96.8	15	15	0.73
A17a	25			0.00	76.9	1.5					13	10	0.73
A17a	30	16.2	0.4	0.00	79.2	2.8	44.6	222.1	177.6	97.9	15	12	0.73
A17a	35			0.00	78.4	4.0					17	15	0.73
A17a	40	18.4	0.4	0.00	77.1	3.5	32.8	139.9	107.0	98.5	17	15	0.73
A17a	45			0.00	78.5	2.5					17	14	0.73
A17a	50	17.9	0.7	0.00	79.6	2.5	36.4	166.7	130.3	97.1	16	15	0.73
A17a	55			0.00	78.3	3.8					15	15	0.73
A17a	60			0.00	79.5	3.5					15	15	0.73
A18a	0	16.5	0.4	0.00	78.9	3.5	48.3	235.0	186.7	98.1	19	18	0.73
A18a	5			0.00	80.1	3.8					20	20	0.73
A18a	10	21.9	0.7	0.00	79.7	3.0	53.9	200.9	147.0	97.7	22	22	0.73
A18a	15			0.00	80.9	4.8					19	19	0.73
A18a	20	21.2	0.3	0.00	79.4	3.3	78.6	298.0	219.3	98.9	22	20	0.73
A18a	25			0.00	79.3	5.5					22	20	0.73
A18a	30	20.9	0.3	0.00	80.6	4.3	86.8	338.3	251.6	98.9	20	20	0.73
A18a	35			0.00	79.5	5.3					20	18	0.73
A18a	40	19.1	0.4	0.00	80.7	5.5	84.9	364.9	280.0	98.3	20	18	0.73
A18a	45			0.00	78.6	4.5					20	20	0.73
A18a	50	19.9	0.4	0.00	81.0	4.5	70.5	290.9	220.5	98.3	22	20	0.73
A18a	55			0.00	78.9	4.0					22	20	0.73
A18a	60			0.00	80.0	4.3					22	20	0.73

Table B5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A13b	0			0.00	78.7	3.9					20	20	0.73
A13b	5			0.00	79.7	3.5					22	21	0.73
A13b	10	39.9	0.0	0.00	78.7	4.9	77.1	152.2	75.0	100.0	21	21	0.73
A13b	15			0.00	77.9	6.3					20	20	0.73
A13b	20	40.7	1.1	0.00	77.4	4.0	86.5	166.5	80.0	98.7	21	20	0.73
A13b	25			0.00	78.8	5.5					23	21	0.73
A13b	30	39.0	0.8	0.00	78.1	4.5	77.3	156.4	79.2	99.0	20	18	0.73
A13b	35			0.00	82.0	5.0					20	18	0.73
A13b	40	38.1	1.0	0.00	75.9	6.5	88.3	178.5	90.2	98.6	20	18	0.73
A13b	45			0.00	78.7	5.0					17	15	0.73
A13b	50	36.1	0.9	0.00	78.7	4.5	64.6	142.7	78.1	98.6	17	15	0.73
A13b	55			0.00	79.7	5.3					19	17	0.73
A13b	60	37.0	1.1	0.00	79.3	4.8	102.1	222.6	120.4	98.3	15	15	0.73
A14b	0	38.0	1.0	0.00	78.0	5.6	104.5	153.8	82.1	97.9	17	15	0.73
A14b	10	38.0	1.5	0.00	79.8	6.2	70.0	149.9	79.9	100.0	19	17	0.73
A14b	15		1.5	0.00	79.6	5.8					18	18	0.73
A14b	20	36.4	0.9	0.00	77.7	5.0	80.9	175.2	94.2	98.7	16	15	0.73
A14b	30	37.8	1.1	0.00	80.6	4.8	79.1	141.3	73.9	98.5	14	13	0.73
A14b	35	36.3	1.5	0.00	77.6	5.5	53.5	116.9	63.4	97.8	14	14	0.73
A14b	40	32.1	1.2	0.00	75.8	5.5	44.2	155.7	91.9	97.8	14	15	0.73
A14b	45	37.8	1.1	0.00	76.8	4.5	67.4	139.0	71.6	98.5	14	14	0.73
A14b	50	33.8		0.00	80.2	5.0	55.6	105.6	60.1	100.0	15	15	0.73
A14b	55	32.1	1.2	0.00	76.7	5.5	63.8	156.0	92.2	97.8	15	15	0.73
A14b	60	33.8	1.0	0.00	80.3	5.0	76.6	182.2	105.6	98.4	15	15	0.73
A15b	0	22.7	0.6	0.00	81.6	4.3	42.6	155.9	113.3	98.2	22	20	0.56

Table B5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention Time (RPM)
A15b	5			0.00	80.4	4.3					22	20	0.56
A15b	10	22.3	0.0	0.00	78.1	3.8	35.1	122.9	87.9	100.0	22	22	0.56
A15b	15			0.00	79.7	4.0					22	22	0.56
A15b	20	23.9	0.7	0.00	82.2	4.3	38.5	135.5	97.0	97.8	22	20	0.56
A15b	25			0.00	80.8	4.0					21	18	0.56
A15b	30	23.1	0.8	0.00	81.2	4.5	38.3	137.9	99.5	97.7	22	20	0.56
A15b	35			0.00	78.8	3.3					22	20	0.56
A15b	40	23.5	0.9	0.00	80.7	3.5	34.3	121.2	86.9	97.3	24	20	0.56
A15b	45			0.00	77.2	3.8					20	20	0.56
A15b	50	23.5	0.8	0.00	81.3	3.5	38.2	135.4	97.2	97.7	20	20	0.56
A15b	55			0.00	80.0	3.8					20	20	0.56
A15b	60			0.00	79.7	3.8					20	19	0.56
A16b	0	21.3	0.4	0.00	78.1	3.0	46.6	173.3	126.7	98.7	8.0	6.0	0.73
A16b	5			0.00	78.2	2.0					9.0	8.0	0.73
A16b	10	23.3	0.8	0.00	77.4	3.8	43.2	147.3	104.1	97.6	9.0	8.0	0.73
A16b	15			0.00	77.2	3.8					10.0	9.0	0.73
A16b	20	31.0	1.0	0.00	75.4	3.3	45.6	113.0	67.4	98.0	8.0	6.0	0.73
A16b	25			0.00	77.4	3.0					8.0	10.0	0.73
A16b	30	24.3	0.9	0.00	75.7	3.5	52.2	166.7	114.4	97.6	8.0	8.0	0.73
A16b	35			0.00	78.4	3.5					9.0	9.0	0.73
A16b	40	32.0	0.9	0.00	77.6	4.0	36.9	90.9	54.1	98.4	10.0	11.0	0.73
A16b	45			0.00	78.3	2.5					9.0	10.0	0.73
A16b	50	22.8	1.0	0.00	76.2	3.8	45.5	156.7	111.2	96.9	10.0	9.0	0.73
A16b	55			0.00	78.1	2.3					10.0	10.0	0.73
A16b	60			0.00	78.2	2.8					10.0	10.0	0.73

Table B5 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming (°Hg)	Drying (°Hg)	Retentior Time (RPM)
A17b	0	20.4	0.4	0.00	78.9	2.5	39.8	156.2	116.4	98.6	15	15	0.73
A17b	5			0.00	79.0	2.8					18	15	0.73
A17b	10	19.6	0.0	0.00	79.1	3.0	33.7	135.6	102.0	100.0	18	15	0.73
A17b	15			0.00	80.1	3.3					18	15	0.73
A17b	20	13.1	0.5	0.00	80.2	2.0	20.9	131.8	110.9	96.8	15	15	0.73
A17b	25			0.00	76.0	1.5					13	10	0.73
A17b	30	16.2	0.4	0.00	77.4	2.0	38.5	187.2	148.7	97.9	15	12	0.73
A17b	35			0.00	77.6	3.8					17	15	0.73
A17b	40	18.4	0.4	0.00	78.2	3.8	47.7	206.2	158.5	98.5	17	15	0.73
A17b	45			0.00	77.3	4.0					17	14	0.73
A17b	50	17.9	0.7	0.00	78.2	3.5	36.8	165.2	128.4	97.2	15	15	0.73
A17b	55			0.00	77.8	3.5					18	15	0.73
A17b	60			0.00	77.9	3.8					15	15	0.73
A18b	0	16.5	0.4	0.00	80.4	2.8	50.2	249.0	198.8	98.1	18	18	0.73
A18b	5			0.00	80.1	3.5					20	20	0.73
A18b	10	21.9	0.7	0.00	81.1	4.8	43.5	164.8	121.3	97.7	20	20	0.73
A18b	15			0.00	81.1	4.3					19	19	0.73
A18b	20	21.2	0.3	0.00	79.1	5.0	62.6	236.6	173.9	98.9	22	20	0.73
A18b	25			0.00	80.5	5.0					22	20	0.73
A18b	30	20.9	0.3	0.00	77.3	4.0	52.1	194.9	142.8	98.9	20	20	0.73
A18b	35			0.00	80.3	5.5					20	18	0.73
A18b	40	19.1	0.4	0.00	81.2	4.8	61.9	267.7	205.9	98.3	20	18	0.73
A18b	45			0.00	78.3	4.5					20	18	0.73
A18b	50	19.9	0.4	0.00	81.3	4.8	83.2	344.8	261.6	98.3	20	18	0.73
A18b	55			0.00	79.8	5.5					22	20	0.73
A18b	60			0.00	80.4	5.0					22	20	0.73

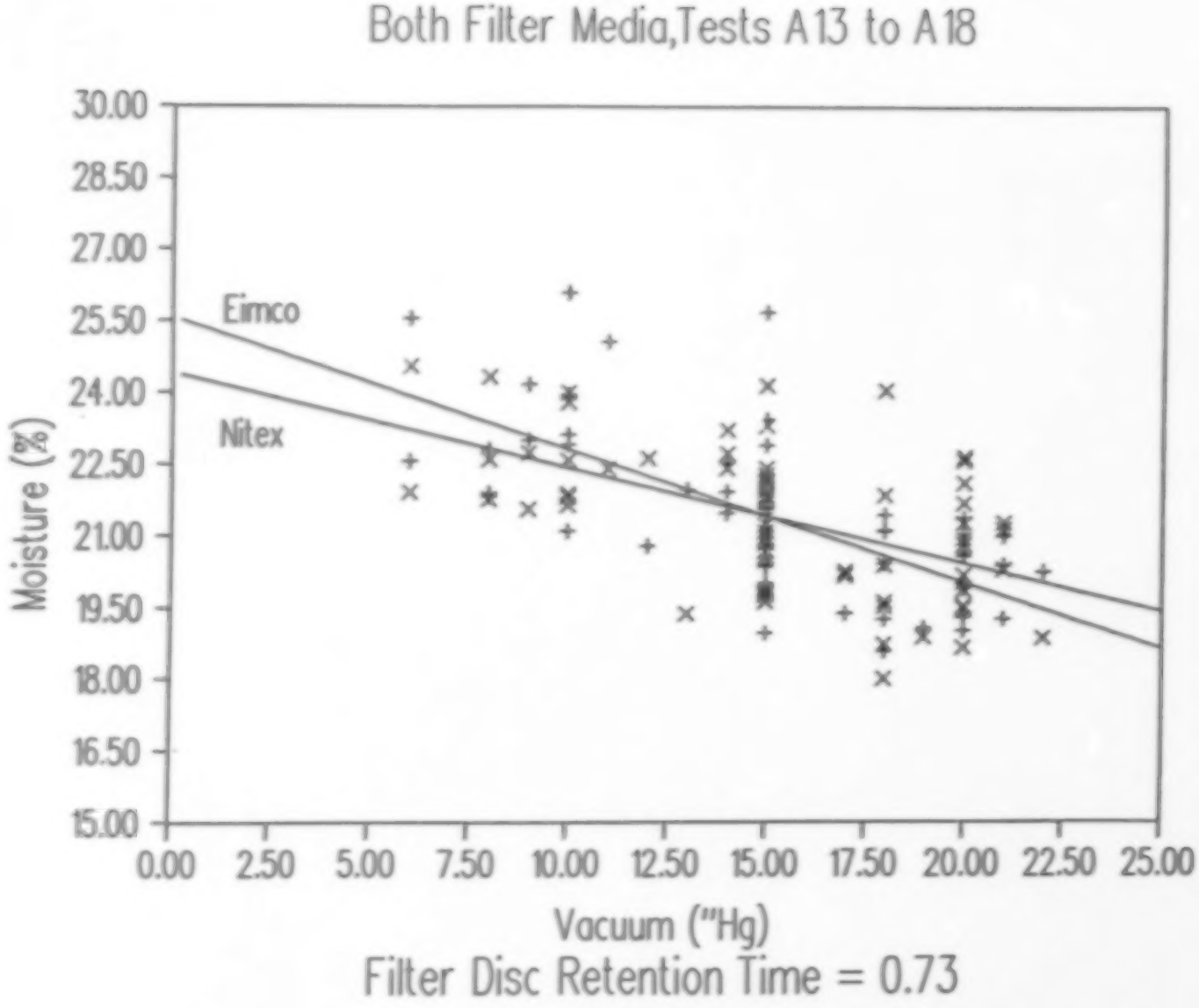

Figure B1 - Cake moisture vs vacuum at disc retention (0.73) for tests A13 to A18, Part II

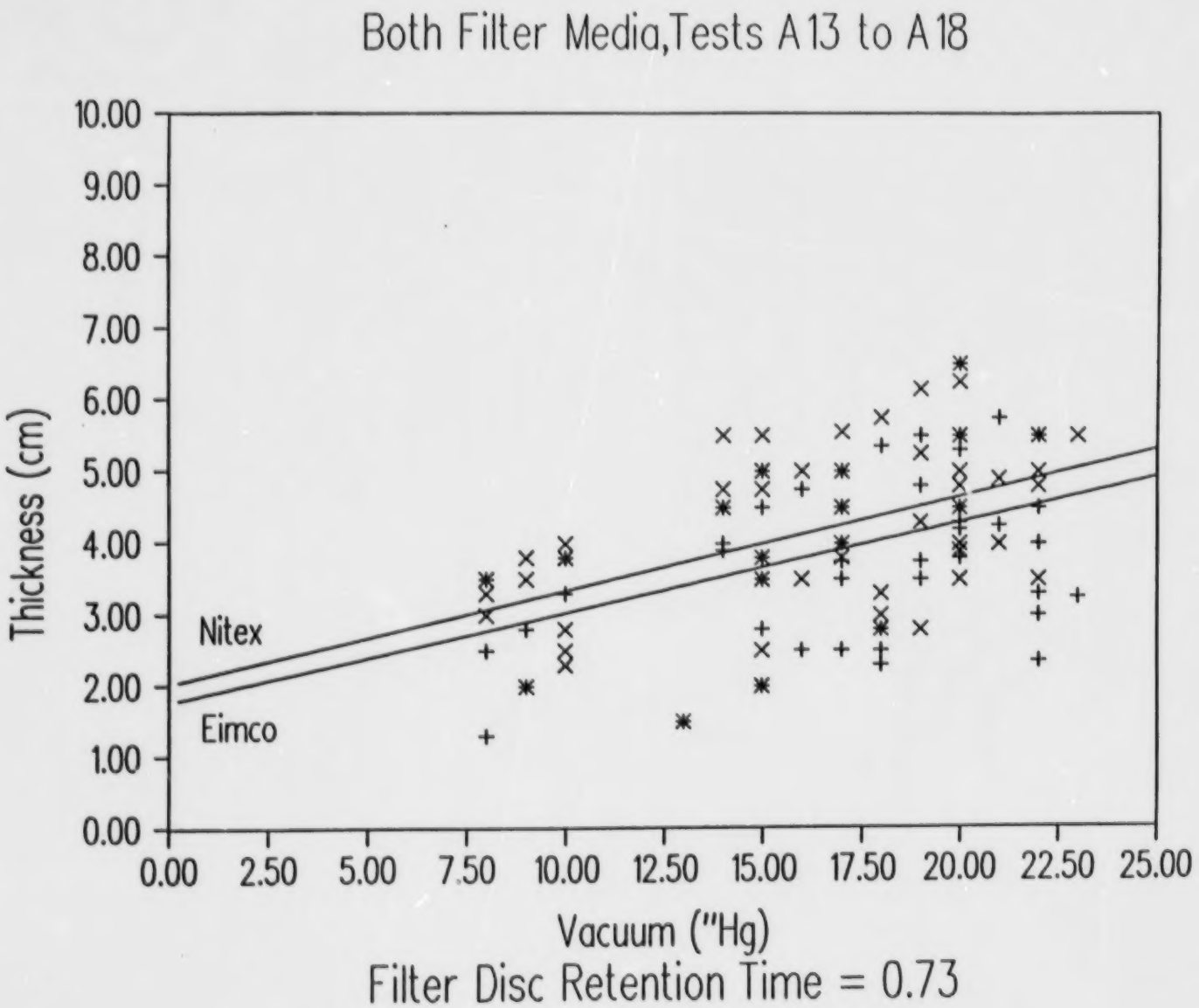

Figure B2 - Cake thickness vs vacuum at disc retention (0.73) for tests A13 to A18, Part II

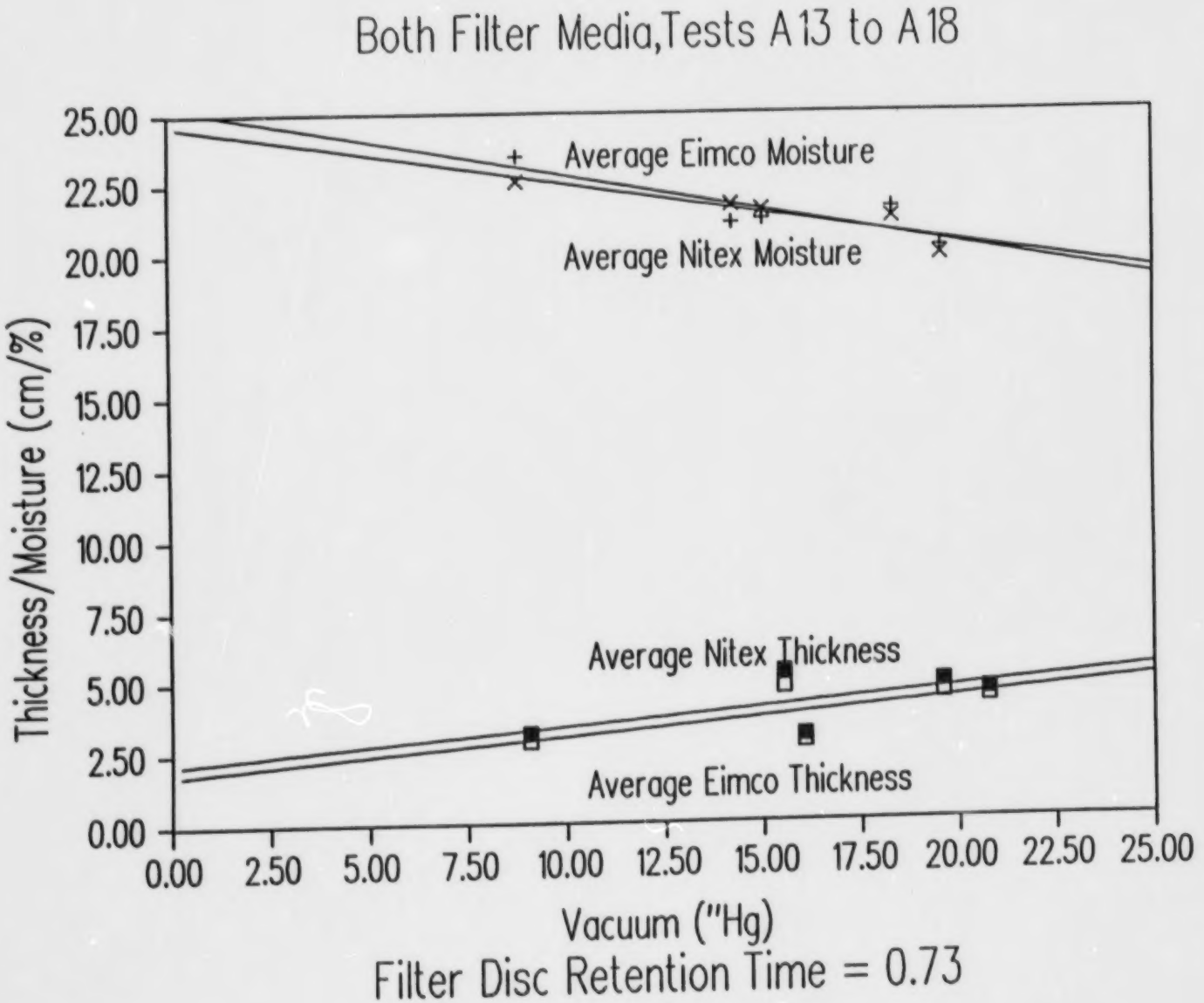

Figure B3 - Cake thickness/moisture vs vacuum at disc retention (0.73) for tests A13 to A18, Part II

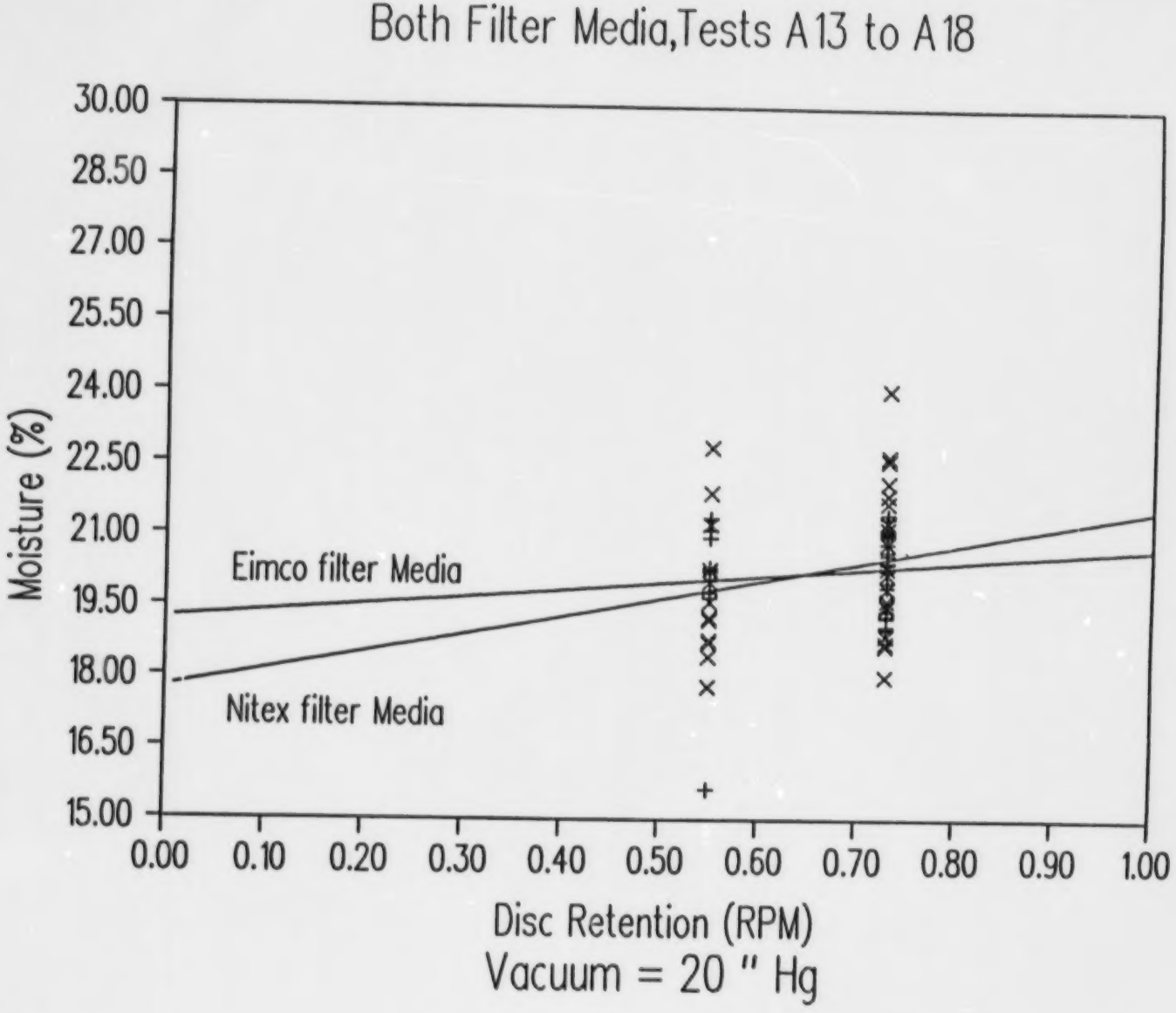

Figure B4 - Cake moisture vs disc retention at vacuum (20) for tests A13 to A18, Part II

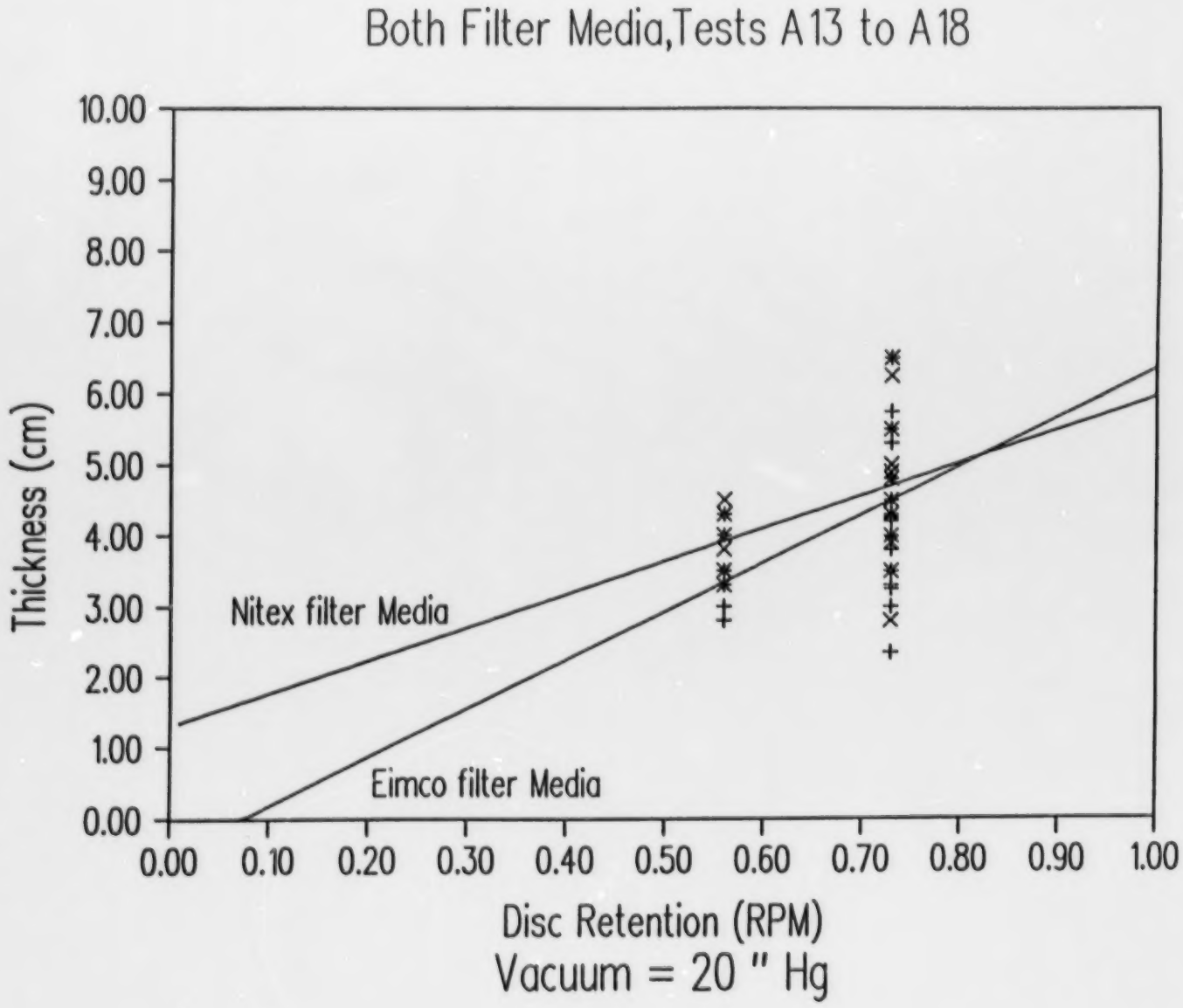

Figure B5 - Cake thickness vs disc retention at vacuum (20) for tests A13 to A18, Part II

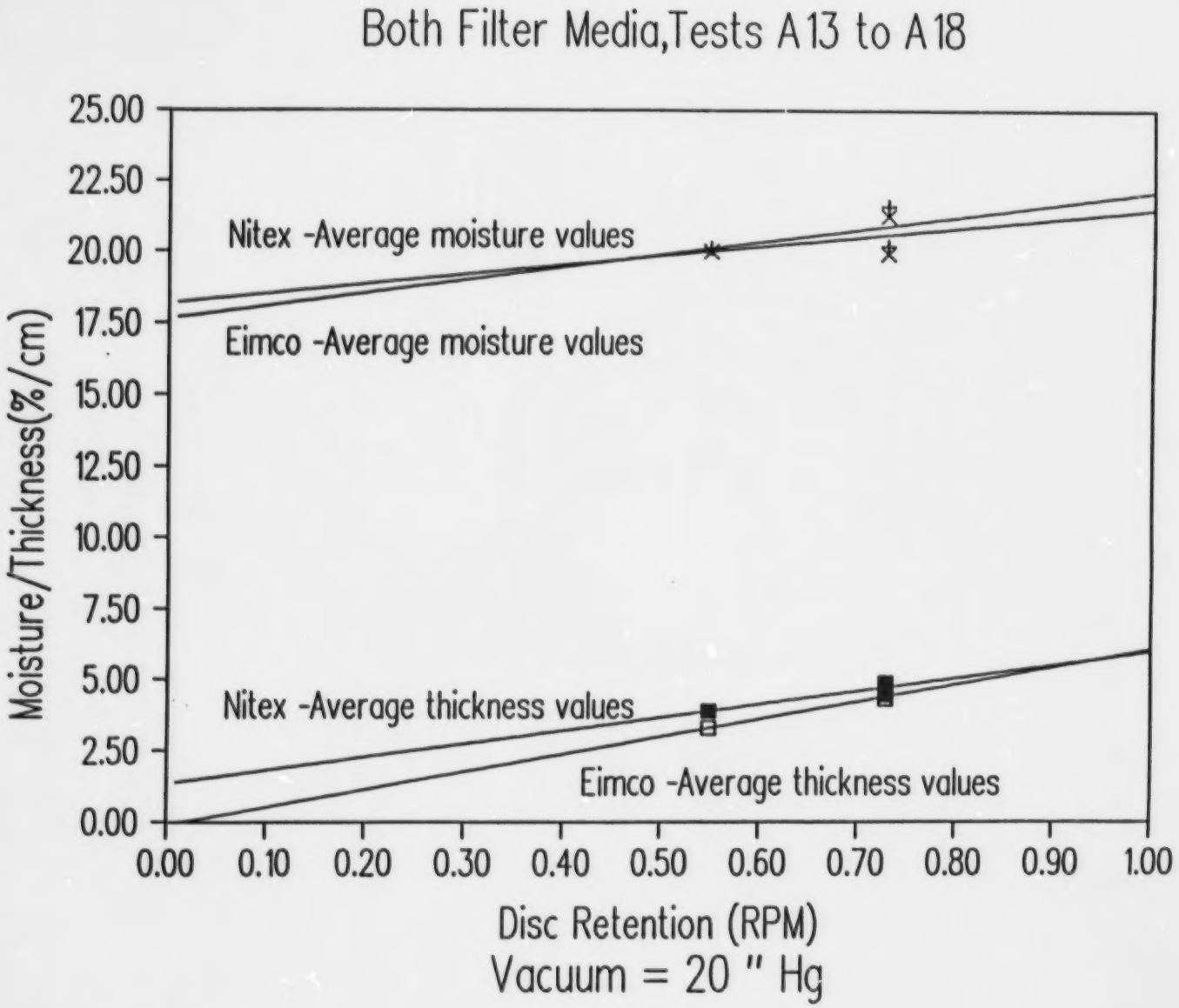

Figure B6 - Cake moisture/thickness vs disc retention at vacuum (20) for tests A13 to A18, Part II

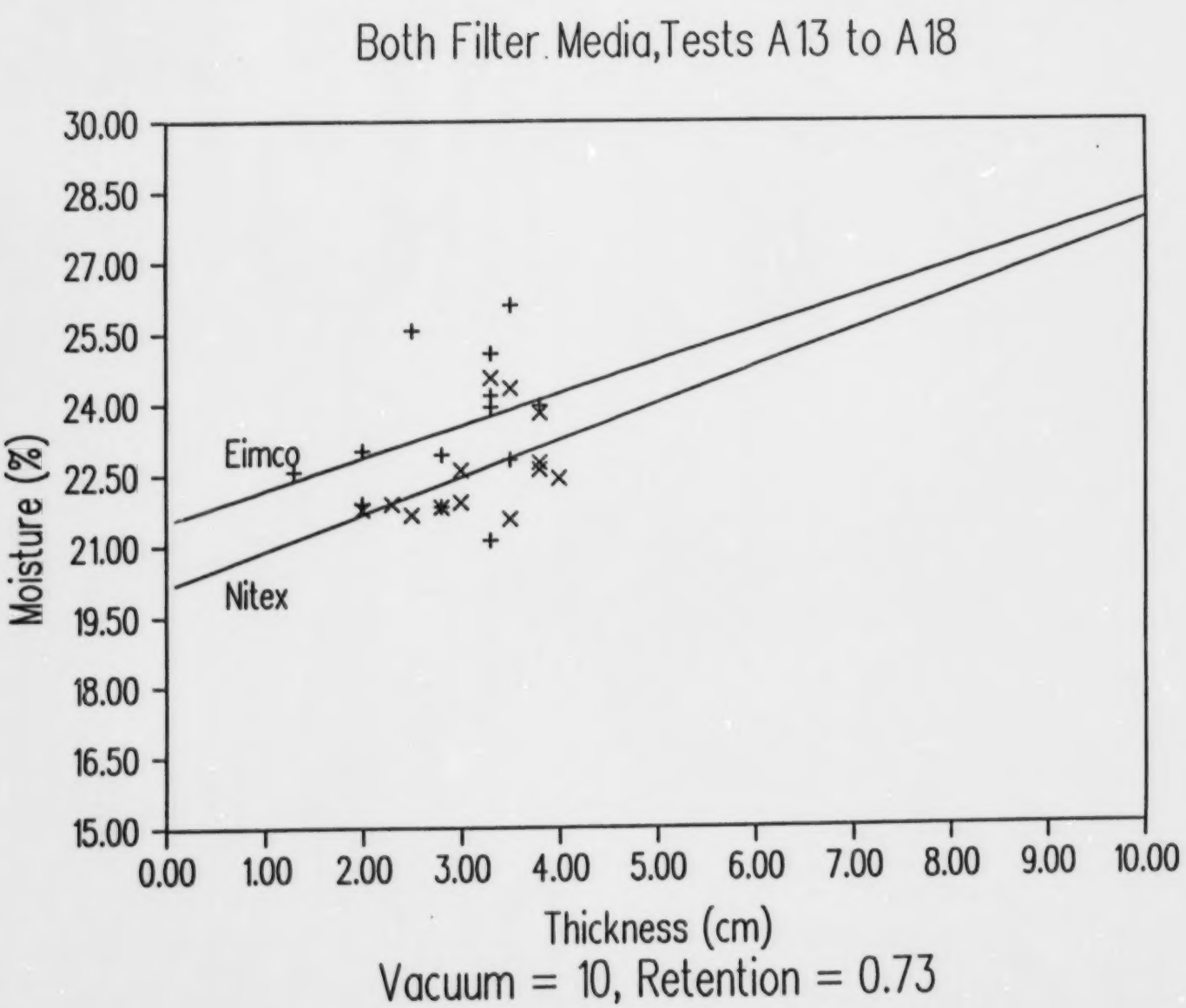

Figure B7 - Cake moisture vs thickness at vacuum (10) and disc retention (0.73) for tests A13 to A18, Part II

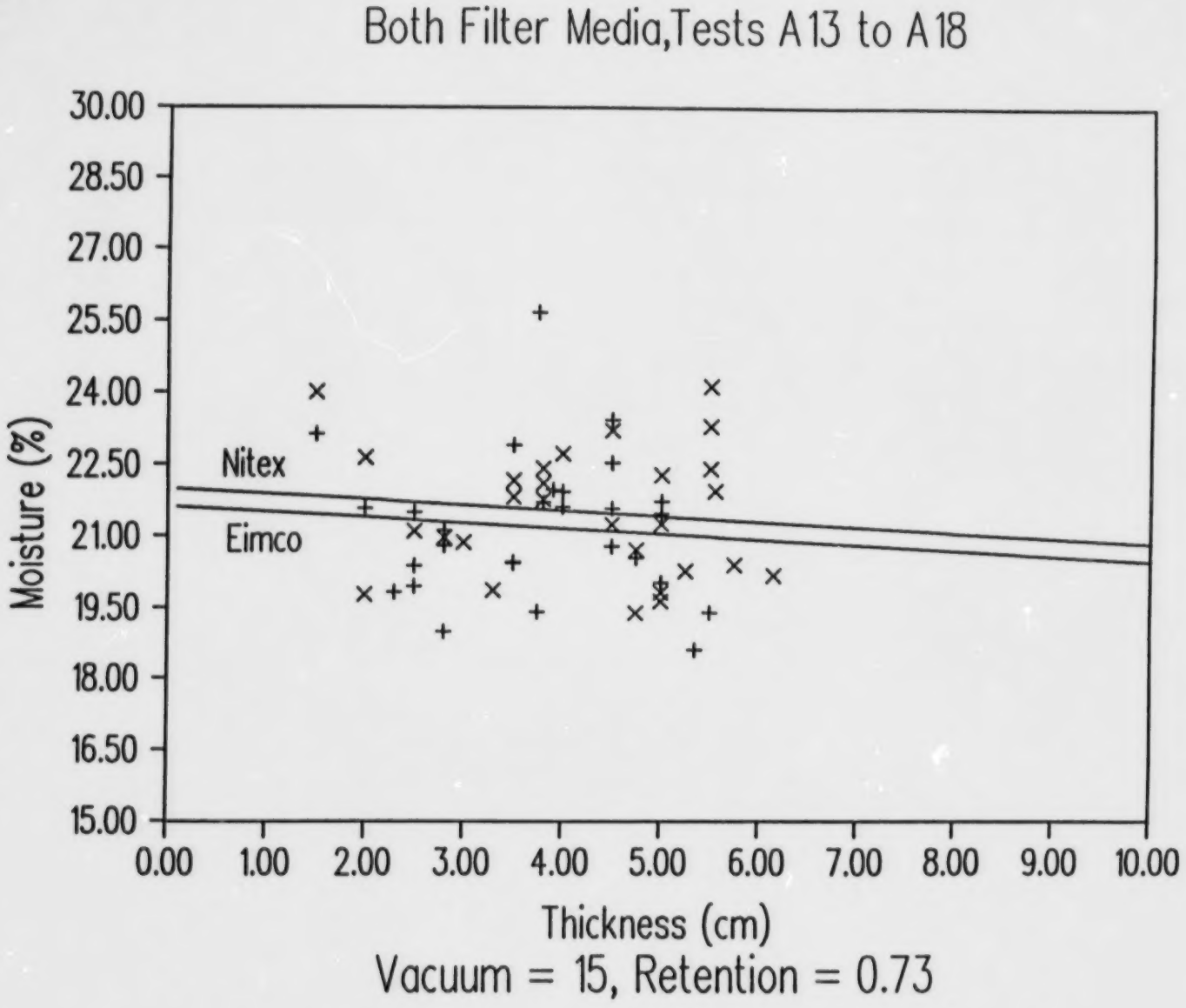

Figure B8 - Cake moisture vs thickness at vacuum (15) and disc retention (0.73) for tests A13 to A18, Part II

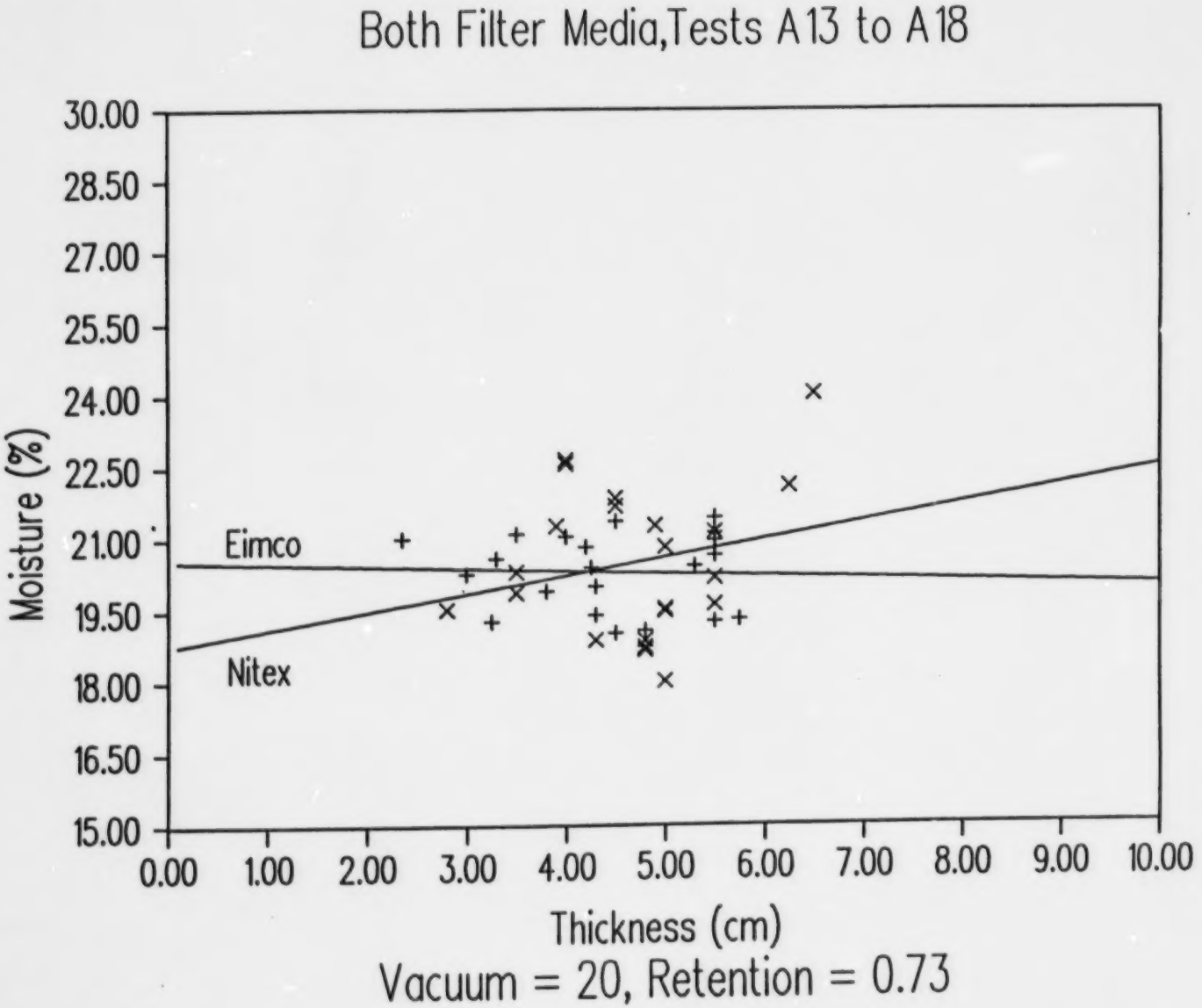

Figure B9 - Cake moisture vs thickness at vacuum (20) and disc retention (0.73) for tests A13 to A18, Part II

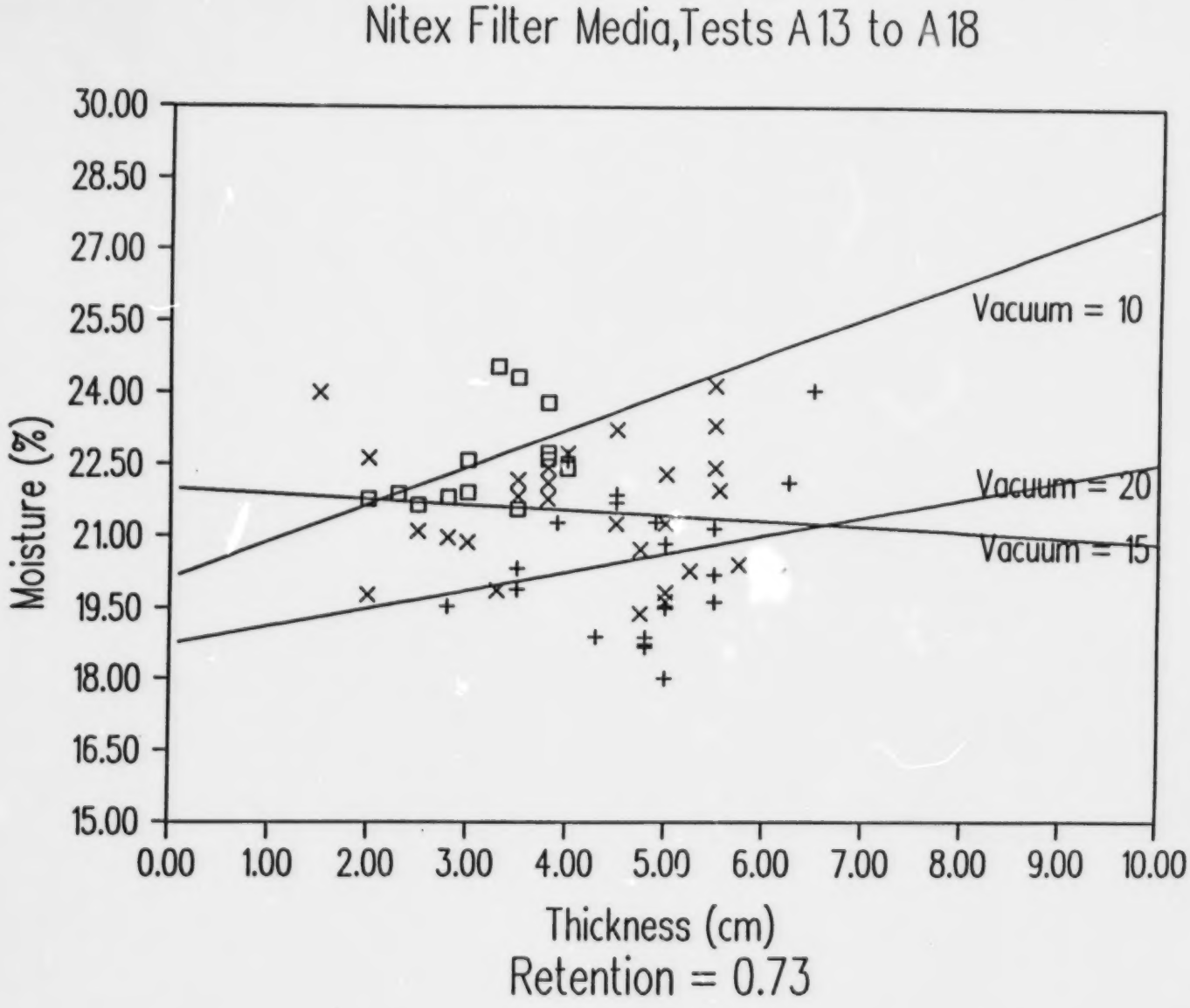

Figure B10 - Cake moisture vs thickness at disc retention (0.73) and all vacuums for tests A13 to A18, Part II

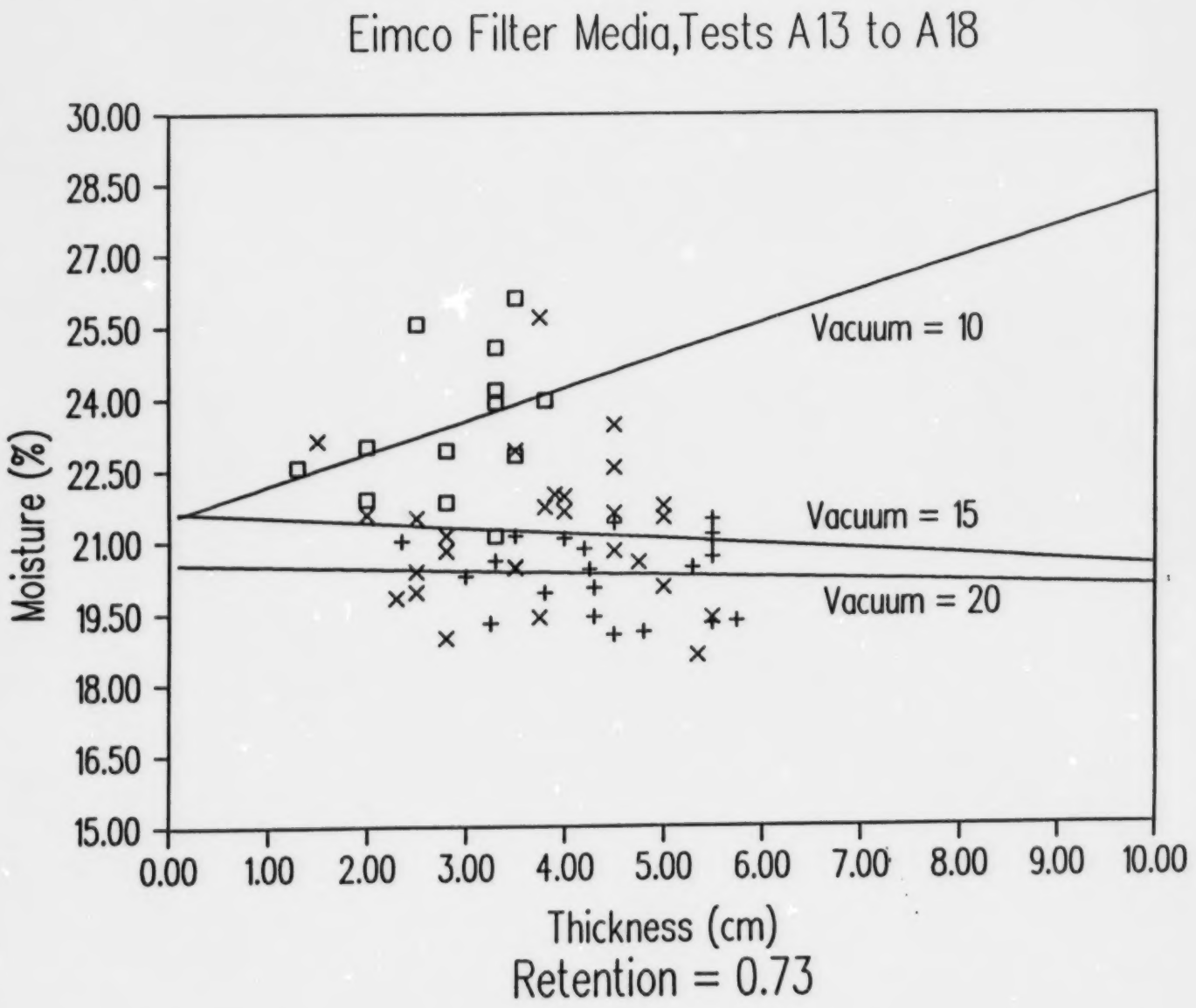

Figure B11 - Cake moisture vs thickness at disc retention (0.73) and all vacuums for tests A13 to A18, Part II

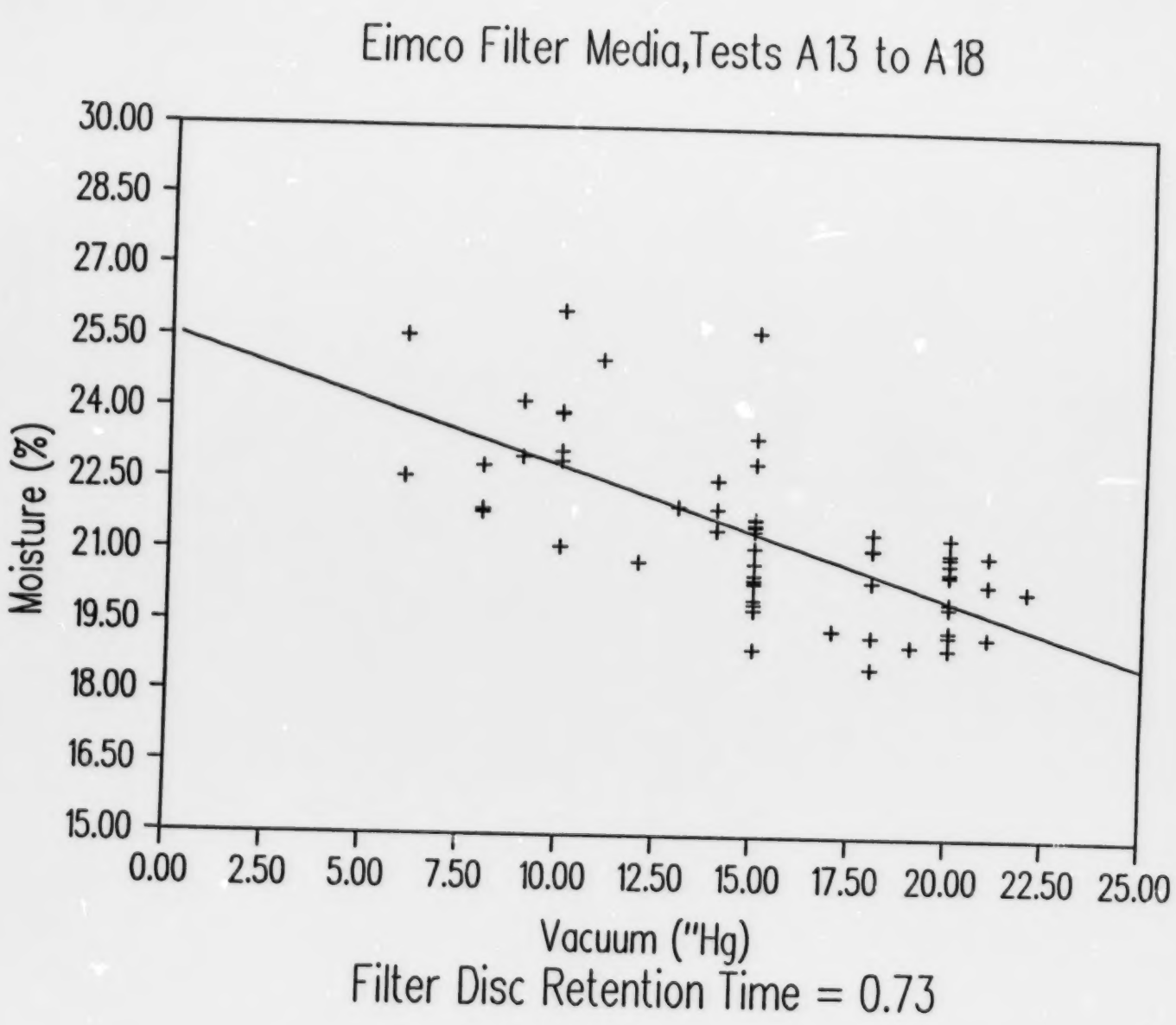

Figure B12 - Cake moisture vs vacuum at disc retention (0.73) EIMCO filter media for tests A13 to A18, Part II

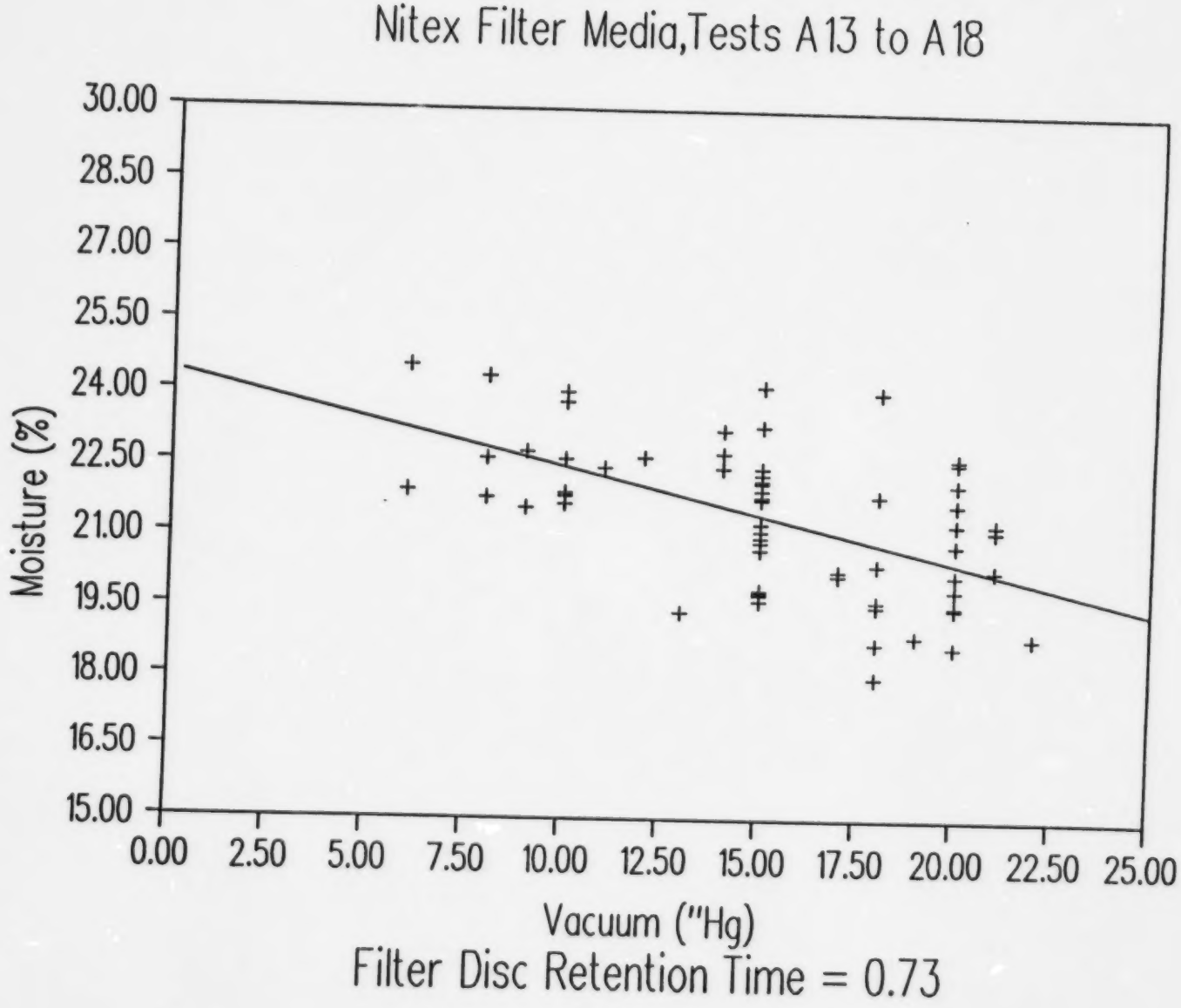

Figure B13 - Cake moisutre vs vacuum at disc retention (0.73) NITEX filter media for tests A13 to A18, Part II

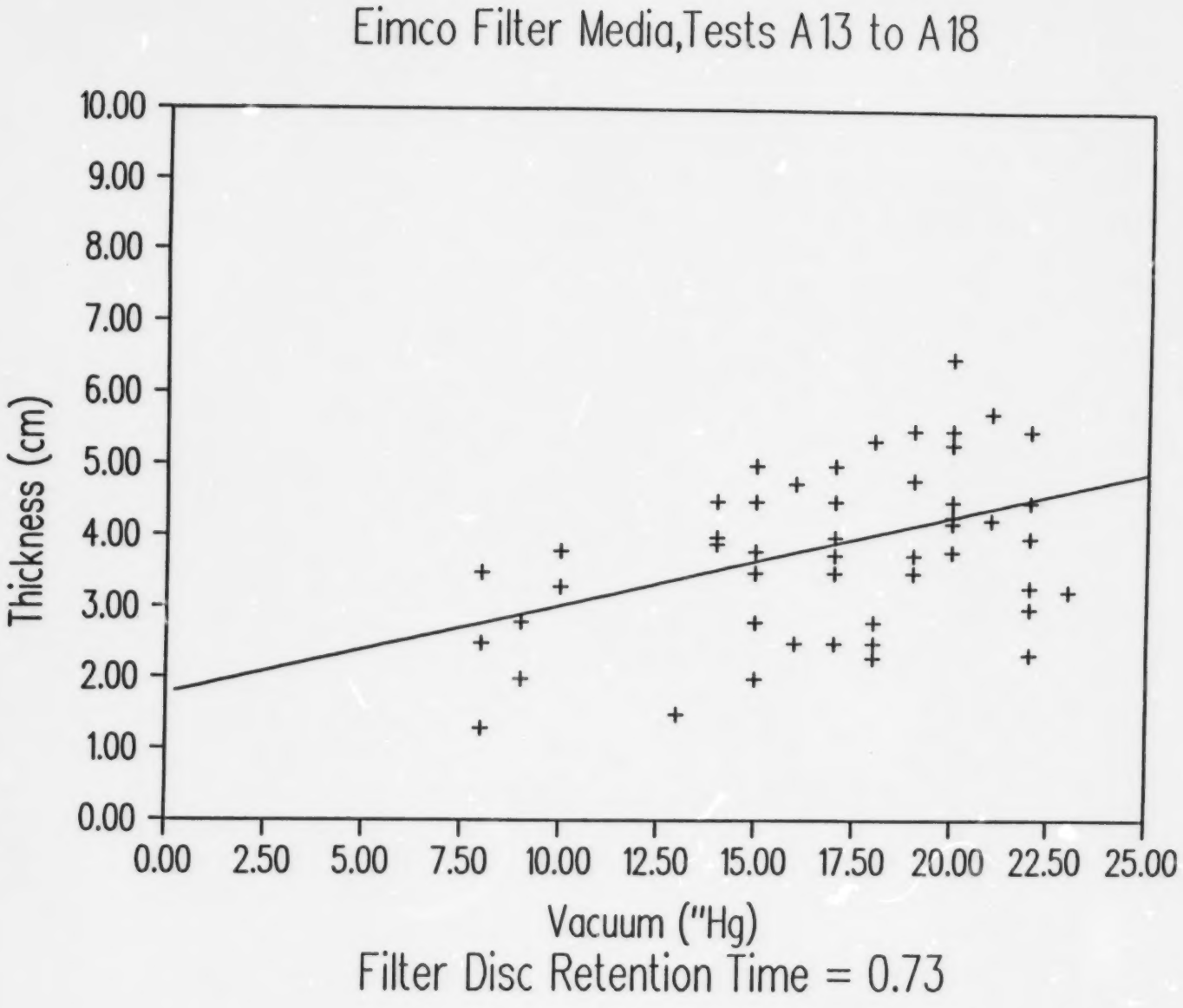

Figure B14 - Cake thickness vs vacuum at disc retention (0.73) EIMCO filter media for tests A13 to A18, Part II

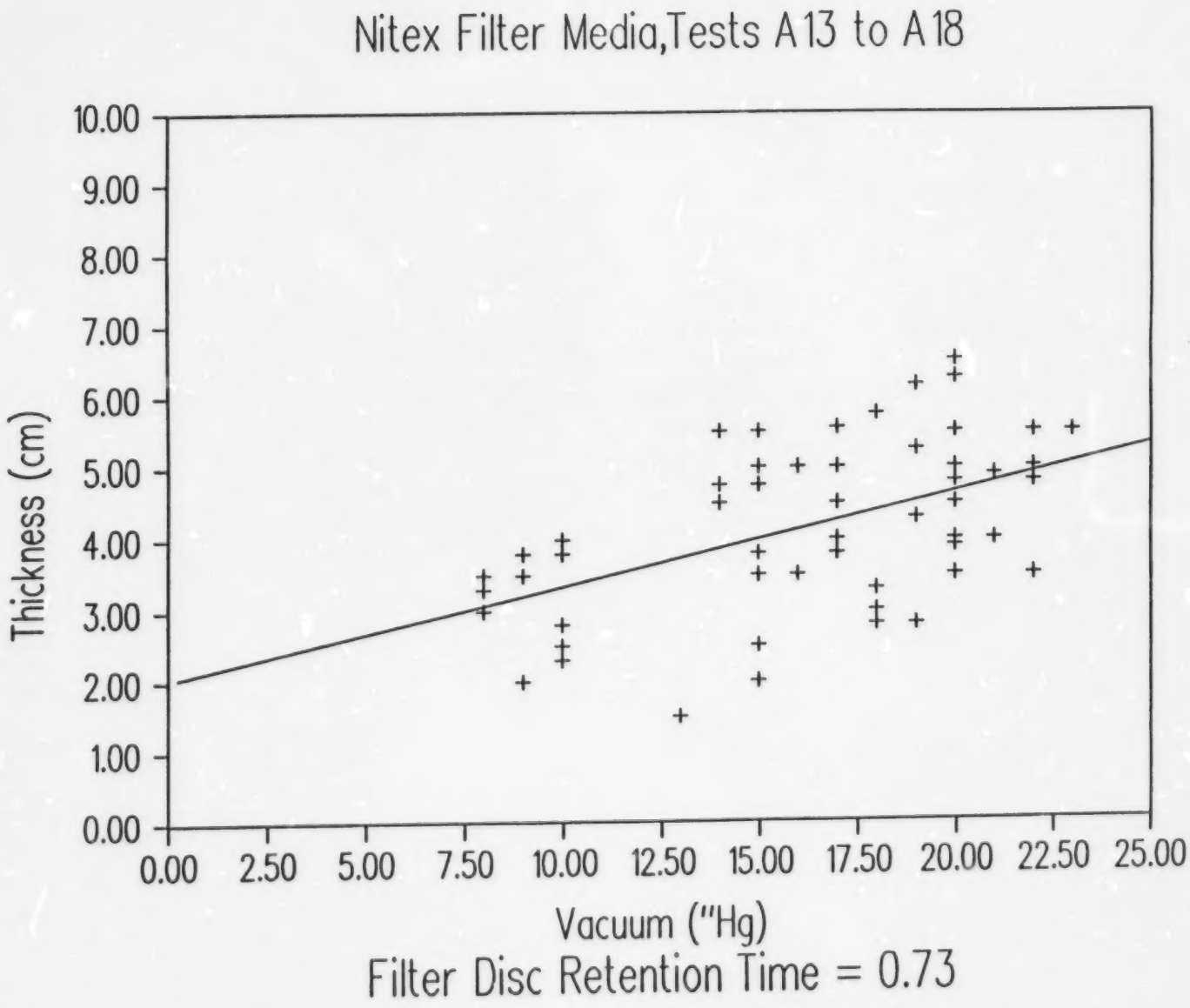

Figure B15 - Cake thickness vs vacuum at disc retention (0.73) NITEX filter media for tests A13 to A18, Part II

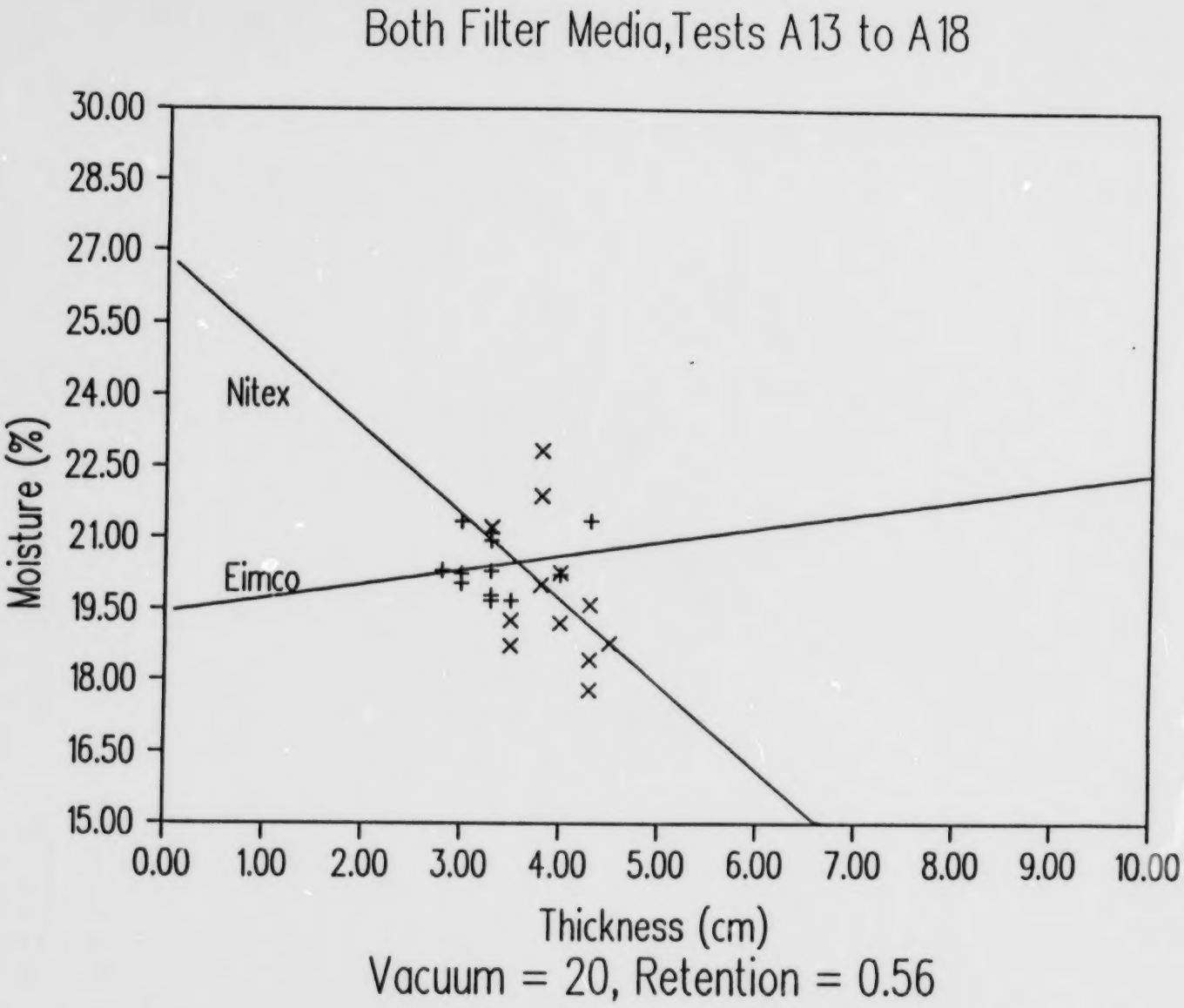

Figure B16 - Cake moisture vs thickness at vacuum (20) and disc retention (0.56) EIMCO and NITEX filter media for tests A13 to A18, Part II

APPENDIX C

Tables C1 to C6

Figures C1 to C50

OPTION 1.

FLOCCULANT	F1			F2			F3		
DOSAGES	LOW	MED	HIGH	LOW	MED	HIGH	LOW	MED	HIGH
FILTER MEDIA									
EIMCO									
NITEX									

F1,F2,F3 : AS DETERMINED BY RPC BENCH SCALE TESTING .

DOSAGES : LOW . 2/3 OF OPTIMUM
MED . OPTIMUM
HIGH . 1 1/3 OPTIMUM

REVISED OPTION 1.

FLOCCULANT	F1						F2						F3					
DOSAGES	1	2	3	4	5	F	1	2	3	4	5	F	1	2	3	4	5	F
FILTER MEDIA					*f*						*f*						*f*	
EIMCO																		
NITEX																		

FLOCCULANT F1,F2,F3 : AS DETERMINED BY RPC BENCH SCALE TESTING .
DOSAGES : A RANGE OF FIVE DOSAGES UP TO POINT OF VACCUUM FAILURE .
f : CRITICAL DOSAGE FOR VACUUM FAILURE .
F : FINAL TEST

Table C1 - Average results of tests A19 to A24, Part III

	RANGE	TEST ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)
ALCHEM 8605		A19Base1	43.5	0.9	0.0	80.1	4.7	125.8	233.1	107.3	99.1	17.2	16.6
	1	A19Floc1	40.4	0.7	48.9	78.5	5.3	132.3	259.5	127.3	99.1	15.2	12.4
		A19Base2	28.8	0.7	0.0	78.6	2.7	50.0	140.6	90.6	98.5	17.2	15.8
	2	A19Floc2	31.0	0.7	21.2	79.3	2.2	55.7	144.3	88.6	98.6	15.2	12.4
	3	A19Floc3	30.5	0.7	57.4	78.1	3.8	58.2	152.4	94.2	98.5	14.6	14.2
	4	A19Floc4	24.4	0.6	148.9	76.1	2.8	57.1	181.2	124.1	98.3	14.0	13.2
	5	A19Floc5	22.7	0.8	145.6	73.5	2.1	53.5	178.2	124.7	97.5	15.4	14.0
		A23Base	34.7	0.6	0.0	79.6	4.1	70.7	170.2	97.4	99.0	15.0	15.0
	FINAL	A23Floc1	34.1	0.3	51.0	77.3	3.7	91.2	209.8	118.6	99.5	15.6	15.0
POLIYIZ 0692		A20Base	26.4	0.9	0.0	79.5	2.5	43.6	134.3	90.6	97.7	16.4	16.6
	1	A20Floc1	24.4	0.9	133.7	76.7	2.8	58.2	187.9	129.7	97.5	15.2	14.2
	2	A20Floc2	27.0	0.7	60.4	78.8	2.5	57.3	170.0	112.7	98.2	15.4	15.0
	3	A20Floc3	27.1	1.0	85.3	79.3	2.2	40.2	122.4	82.1	97.5	16.6	16.0
	4	A20Floc4	27.5	0.8	102.2	77.6	2.0	58.3	169.7	111.3	98.0	15.4	15.0
	5	A20Floc5	27.0	0.8	133.5	77.7	2.1	47.9	143.4	95.5	98.0	15.0	15.4
	FINAL												

Table C1 Continued

ALCHEM 1 C 3 4

RANGE	TEST ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)
	A21Base	42.9	0.7	0.0	80.0	3.5	71.0	134.7	63.8	99.2	15.0	15.0
1	A21Floc1	34.4	0.7	28.6	77.4	3.5	73.1	164.9	91.8	98.7	15.4	15.0
2	A21Floc2	25.2	0.6	97.6	75.9	2.9	55.7	173.6	117.9	98.2	14.8	13.8
3	A21Floc3	26.9	0.4	120.6	75.5	2.5	53.8	152.9	99.1	99.0	14.7	14.3
4	A21Floc4	25.0	0.9	118.2	73.5	2.7	56.9	171.2	114.3	97.7	15.2	12.6
FINAL												

PERCOL

A24Base	41.7	0.7	0.0	79.9	5.2	116.9	226.8	109.8	99.2	16.8	15.8
A24Floc1	36.3	0.4	45.3	78.0	7.3	141.0	297.8	156.8	99.5	16.0	15.3
A24Floc2	28.6	0.6	40.6	78.3	5.8	90.9	238.2	147.3	98.3	15.7	14.3

Table C2 - Combined test averages of tests A19 to A24, Part III

TEST ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)	Retention time (RPM)
A19Base1	43.5	0.9	0.0	80.1	4.7	125.8	233.1	107.3	99.1	17.2	16.6	0.73
A19Base2	28.8	0.7	0.0	78.6	2.7	50.0	140.6	90.6	98.5	17.2	15.8	0.73
A20Base	26.4	0.9	0.0	79.5	2.5	43.6	134.3	90.6	97.7	16.4	16.6	0.73
A21Base	42.9	0.7	0.0	80.0	3.5	71.0	134.7	63.8	99.2	15.0	15.0	0.73
A22Base	44.1	0.7	0.0	79.6	6.9	135.6	246.2	110.6	99.3	15.0	16.0	0.73
A23Base	34.7	0.6	0.0	79.6	4.1	70.7	170.2	97.4	99.0	15.0	15.0	0.73
A24Base	41.7	0.7	0.0	79.9	5.2	116.9	226.8	109.8	99.2	16.8	15.8	0.73
A19Floc1	40.4	0.7	48.9	78.5	5.3	132.3	259.5	127.3	99.1	15.2	12.4	0.73
A19Floc2	31.0	0.7	21.2	79.3	2.2	55.7	144.3	88.6	98.6	15.2	12.4	0.73
A19Floc3	30.5	0.7	57.4	78.1	3.8	58.2	152.4	94.2	98.5	14.6	14.2	0.73
A19Floc4	24.4	0.6	148.9	76.1	2.8	57.1	181.2	124.1	98.3	14.0	13.2	0.73
A19Floc5	22.7	0.8	145.6	73.5	2.1	53.5	178.2	124.7	97.5	15.4	14.0	0.73
A20Floc1	24.4	0.9	133.7	76.7	2.8	58.2	187.9	129.7	97.5	15.2	14.2	0.73
A20Floc2	27.0	0.7	60.4	78.8	2.5	57.3	170.0	112.7	98.2	15.4	15.0	0.73
A20Floc3	27.1	1.0	85.3	79.3	2.2	40.2	122.4	82.1	97.5	16.6	16.0	0.73
A20Floc4	27.5	0.8	102.2	77.6	2.0	58.3	169.7	111.3	98.0	15.4	15.0	0.73
A20Floc5	27.0	0.8	133.5	77.7	2.1	47.9	143.4	95.5	98.0	15.0	15.4	0.73
A21Floc1	34.4	0.7	28.6	77.4	3.5	73.1	164.9	91.8	98.7	15.4	15.0	0.73
A21Floc2	25.2	0.6	97.6	75.9	2.9	55.7	173.6	117.9	98.2	14.8	13.8	0.73
A21Floc3	26.9	0.4	120.6	75.5	2.5	53.8	152.9	99.1	99.0	14.7	14.3	0.73
A21Floc4	25.0	0.9	118.2	73.5	2.7	56.9	171.2	114.3	97.7	15.2	12.6	0.73
A23Floc1	34.1	0.3	51.0	77.3	3.7	91.2	209.8	118.6	99.5	15.6	15.0	0.73
A24Floc1	36.3	0.4	45.3	78.0	7.3	141.0	297.8	156.8	99.5	16.0	15.3	0.73
A24Floc2	28.6	0.6	40.6	78.3	5.8	90.9	238.2	147.3	98.3	15.7	14.3	0.73

Table C3 - Combined standard deviations of tests A19 to A24, Part III

TEST ID	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Drying ("Hg)
A19Base1	1.1	0.0	0.0	0.8	0.3	22.7	38.6	16.5	0.1	0.7	0.5
A19Base2	6.7	0.2	0.0	0.4	0.6	9.1	15.5	18.7	0.2	0.7	1.2
A20Base	1.1	0.1	0.0	0.9	0.5	4.6	11.4	7.2	0.5	0.8	0.5
A21Base	3.5	0.0	0.0	0.7	0.5	12.9	27.6	15.8	0.1	0.0	0.0
A22Base	1.2	0.1	0.0	1.5	0.5	7.8	20.1	13.3	0.1	1.3	0.9
A23Base	1.1	0.2	0.0	0.2	0.7	13.4	39.8	24.9	0.3	0.0	0.0
A24Base	1.7	0.0	0.0	0.5	0.3	7.2	3.5	5.2	0.1	1.6	0.4
A19Floc1	2.2	0.1	4.7	2.5	0.2	14.1	23.1	14.0	0.2	0.4	0.5
A19Floc2	2.3	0.2	6.4	0.4	0.4	6.3	23.1	17.9	0.4	0.8	1.0
A19Floc3	2.7	0.1	12.5	0.8	0.1	5.2	10.7	13.2	0.6	1.4	1.5
A19Floc4	1.5	0.1	13.2	0.4	0.3	3.5	8.6	7.9	0.4	1.3	1.5
A19Floc5	0.7	0.1	2.9	1.1	0.2	2.8	6.7	4.2	0.2	0.7	1.5
A20Floc1	0.5	0.0	4.8	0.6	0.3	5.5	14.6	9.1	0.1	0.8	0.0
A20Floc2	1.8	0.2	8.6	0.7	0.4	8.1	30.8	23.3	0.6	1.4	1.3
A20Floc3	2.9	0.2	12.6	0.8	0.2	2.8	19.1	17.6	0.2	0.8	0.0
A20Floc4	4.0	0.1	17.9	1.1	0.2	2.8	20.6	20.1	0.4	0.0	0.8
A20Floc5	5.2	0.1	5.5	0.7	0.5	16.0	20.1	10.0	0.3	0.8	0.0
A21Floc1	2.7	0.1	9.2	0.7	0.2	4.3	26.2	24.1	0.6	0.4	1.0
A21Floc2	0.2	0.1	4.5	1.0	0.2	2.3	6.9	5.0	0.3	0.4	0.5
A21Floc3	1.0	0.3	3.0	0.4	0.1	1.6	10.2	8.5	0.7	0.5	0.5
A21Floc4	1.6	0.2	2.7	1.6	0.6	11.2	36.8	25.7	0.3	1.2	0.0
A23Floc1	1.6	0.2	2.7	1.6	0.6	11.2	36.8	25.7	0.3	1.2	0.0
A24Floc1	5.4	0.3	5.0	0.8	0.5	43.2	59.9	18.7	0.4	0.8	1.2
A24Floc2	11.0	0.0	13.0	0.3	2.4	50.1	71.1	46.7	0.8	0.9	0.5

Table C4 - Filter cake moistures and thickness data for tests A19 to A24, Part III

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A19Base1	0	9	18.8		81.2		4.5	
A19Base1	0	10	20.3	19.6	79.7	80.4	5.5	5.0
A19Base1	5	12	20.0		80.0		4.5	
A19Base1	5	13	19.7	19.8	80.3	80.2	4.0	4.3
A19Base1	10	14	18.5		81.5		4.5	
A19Base1	10	15	18.8	18.7	81.2	81.3	5.0	4.8
A19Base1	15	16	21.0		79.0		4.5	
A19Base1	15	17	20.5	20.8	79.5	79.2	5.0	4.8
A19Base1	20	18	20.9		79.1		4.5	
A19Base1	20	19	20.4	20.6	79.6	79.4	4.5	4.5
A19Base2	0	1	22.2		77.8		3.0	
A19Base2	0	2	21.7	22.0	78.3	78.0	4.5	3.8
A19Base2	5	5	21.4		78.6		2.5	
A19Base2	5	6	22.1	21.7	77.9	78.3	3.0	2.8
A19Base2	10	8	21.4		78.6		2.5	
A19Base2	10	9	21.4	21.4	78.6	78.6	2.5	2.5
A19Base2	15	10	20.4		79.6		2.5	
A19Base2	15	11	21.3	20.9	78.7	79.1	2.0	2.3
A19Base2	20	12	21.7		78.3		2.5	
A19Base2	20	13	20.4	21.1	79.6	78.9	2.0	2.3
A20Base	0	9	21.7		78.3		2.0	
A20Base	0	10	20.5	21.1	79.5	78.9	2.0	2.0
A20Base	5	11	19.1		80.9		2.0	
A20Base	5	12	18.9	19.0	81.1	81.0	2.5	2.3
A20Base	10	13	21.1		78.9		3.0	

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A20Base	10	14	21.5	21.3	78.5	78.7	3.0	3.0
A20Base	15	15	21.6		78.4		3.0	
A20Base	15	16	21.0	21.3	79.0	78.7	3.0	3.0
A20Base	20	17	20.6		79.4		2.0	
A20Base	20	18	19.2	19.9	80.8	80.1	2.0	2.0
A21Base	0	1	19.9		80.1		2.6	
A21Base	0	3	19.9	19.9	80.1	80.1	2.7	2.7
A21Base	5	4	19.6		80.4		3.0	
A21Base	5	5	18.7	19.1	81.3	80.9	3.2	3.1
A21Base	10	6	19.2		80.8		3.6	
A21Base	10	8	19.7	19.4	80.3	80.6	3.7	3.7
A21Base	15	9	21.0		79.0		3.9	
A21Base	15	10	21.5	21.2	78.5	78.8	4.0	4.0
A21Base	20	11	19.5		80.5		3.9	
A21Base	20	12	20.9	20.2	79.1	79.8	4.2	4.1
A22Base	0	1	18.4		81.6		6.0	
A22Base	0	2	18.8	18.6	81.2	81.4	6.0	6.0
A22Base	5	3	19.2		80.8		6.5	
A22Base	5	4	19.4	19.3	80.6	80.7	6.5	6.5
A22Base	10	5	21.1		78.9		7.5	
A22Base	10	6	21.2	21.2	78.8	78.8	7.0	7.3
A22Base	15	8	18.8		81.2		6.0	
A22Base	15	9	19.3	19.1	80.7	80.9	7.5	6.8
A22Base	20	10	22.5		77.5		7.5	
A22Base	20	11	22.5	22.5	77.5	77.5	7.5	7.5

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A22Base	25	12	19.4		80.6		7.0	
A22Base	25	13	19.5	19.5	80.5	80.5	6.5	6.8
A22Base	30	14	23.0		77.0		7.5	
A22Base	30	15	22.2	22.6	77.8	77.4	7.5	7.5
A23Base	0	17	19.9		80.1		3.8	
A23Base	0	18	20.2	20.0	79.8	80.0	4.2	4.0
A23Base	15	19	19.8		80.2		5.0	
A23Base	15	20	21.3	20.6	78.7	79.4	5.5	5.3
A23Base	20	21	20.6		79.4		3.6	
A23Base	20	22	20.3	20.5	79.7	79.5	3.6	3.6
A23Base	25	23	21.1		78.9		3.7	
A23Base	25	24	19.8	20.5	80.2	79.5	3.7	3.7
A23Base	40	25	19.7		80.3		4.1	
A23Base	40	26	19.3	19.5	80.7	80.5	4.1	4.1
A23Base	45	27	15.7		84.3		3.2	
A23Base	45	28	23.8	19.8	76.2	80.2	3.2	3.2
A24Base	0	1	19.3	19.3	80.7	80.7	5.0	5.0
A24Base	0	2	19.4	19.3	80.6	80.7	5.0	5.0
A24Base	5	5	19.8	19.8	80.2	80.2	5.0	5.0
A24Base	5	9	19.8	19.8	80.2	80.2	5.0	5.0
A24Base	10	13	20.1	20.1	79.9	79.9	6.0	6.0
A24Base	10	13	20.8	20.5	79.2	79.5	5.5	5.8
A24Base	15	14	21.2	21.2	78.8	78.8	5.0	5.0
A24Base	15	15	20.1	20.6	79.9	79.4	5.0	5.0

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A19Floc1	0	20	23.3		76.7		4.5	
A19Floc1	0	21	23.0	23.2	77.0	76.8	6.0	5.3
A19Floc1	5	22	23.2		76.8		5.0	
A19Floc1	5	23	23.2	23.2	76.8	76.8	5.0	5.0
A19Floc1	10	24	22.7		77.3		5.0	
A19Floc1	10	25	22.4	22.5	77.6	77.5	5.0	5.0
A19Floc1	15	26	21.4		78.6		6.0	
A19Floc1	15	27	11.9	16.6	88.1	83.4	5.0	5.5
A19Floc1	20	28	21.6		78.4		6.0	
A19Floc1	20	29	21.8	21.7	78.2	78.3	5.0	5.5
A19Floc2	0	31	20.1		79.9		2.0	
A19Floc2	0	32	19.3	19.7	80.7	80.3	2.0	2.0
A19Floc2	5	33	21.8		78.2		1.8	
A19Floc2	5	34	21.4	21.6	78.6	78.4	2.0	1.9
A19Floc2	10	35	20.8		79.2		2.2	
A19Floc2	10	36	20.7	20.7	79.3	79.3	2.0	2.1
A19Floc2	15	37	21.0		79.0		2.0	
A19Floc2	15	38	21.0	21.0	79.0	79.0	2.0	2.0
A19Floc2	20	39	20.6		79.4		2.5	
A19Floc2	20	40	20.6	20.6	79.4	79.4	3.0	2.8
A19Floc2	25	41	20.8		79.2		2.0	
A19Floc2	25	42	20.7	20.8	79.3	79.2	2.0	2.0
A19Floc3	0	43	21.7		78.3		4.0	
A19Floc3	0	44	21.9	21.8	78.1	78.2	4.0	4.0

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A19Floc3	5	45	21.7		78.3		4.0	
A19Floc3	5	46	21.7	21.7	78.3	78.3	3.5	3.8
A19Floc3	10	47	21.7		78.3		4.0	
A19Floc3	10	48	21.2	21.4	78.8	78.6	4.0	4.0
A19Floc3	15	49	22.1		77.9		4.0	
A19Floc3	15	50	22.8	22.4	77.2	77.6	4.0	4.0
A19Floc3	20	51	22.1		77.9		3.0	
A19Floc3	20	52	22.4	22.2	77.6	77.8	3.0	3.0
A19Floc4	0	14	24.4		75.6		2.5	
A19Floc4	0	16	23.3	23.9	76.7	76.1	2.0	2.3
A19Floc4	5	17	23.4		76.6		2.5	
A19Floc4	5	18	24.1	23.8	75.9	76.2	3.0	2.8
A19Floc4	10	19	23.5		76.5		3.0	
A19Floc4	10	20	23.4	23.5	76.6	76.5	3.0	3.0
A19Floc4	15	21	24.5		75.5		3.0	
A19Floc4	15	22	23.7	24.1	76.3	75.9	3.0	3.0
A19Floc4	20	23	24.9		75.1		3.0	
A19Floc4	20	24	24.2	24.5	75.8	75.5	3.0	3.0
A19Floc5	0	25	28.1		71.9		2.0	
A19Floc5	0	26	27.8	27.9	72.2	72.1	2.0	2.0
A19Floc5	5	27	25.4		74.6		2.0	
A19Floc5	5	28	26.0	25.7	74.0	74.3	2.5	2.3
A19Floc5	10	29	26.4		73.6		2.0	
A19Floc5	10	30	26.2	26.3	73.8	73.7	2.2	2.1
A19Floc5	15	31	25.6		74.4		2.0	

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A19Floc5	15	32	26.8	26.2	73.2	73.8	2.2	2.1
A19Floc5	20	33	27.9		72.1		2.0	
A19Floc5	20	34	24.8	26.3	75.2	73.7	2.2	2.1
A20Floc1	0	19	22.3		77.7		2.5	
A20Floc1	0	20	20.9	21.6	79.1	78.4	2.5	2.5
A20Floc1	5	21	22.8		77.2		3.0	
A20Floc1	5	22	22.8	22.8	77.2	77.2	3.0	3.0
A20Floc1	10	23	24.3		75.7		2.5	
A20Floc1	10	24	24.7	24.5	75.3	75.5	2.8	2.7
A20Floc1	15	25	24.0		76.0		3.0	
A20Floc1	15	26	23.4	23.7	76.6	76.3	3.0	3.0
A20Floc1	20	27	24.3		75.7		2.5	
A20Floc1	20	28	24.1	24.2	75.9	75.8	3.0	2.8
A20Floc2	0	29	21.7		78.3		2.0	
A20Floc2	0	31	22.0	21.9	78.0	78.1	2.0	2.0
A20Floc2	5	32	20.3		79.7		2.5	
A20Floc2	5	33	22.4	21.3	77.6	78.7	2.5	2.5
A20Floc2	10	34	21.0		79.0		2.5	
A20Floc2	10	35	20.7	20.9	79.3	79.1	2.5	2.5
A20Floc2	15	36	22.1		77.9		3.0	
A20Floc2	15	37	21.4	21.8	78.6	78.2	3.0	3.0
A20Floc2	20	38	20.3		79.7		2.8	
A20Floc2	20	39	20.1	20.2	79.9	79.8	2.5	2.7
A20Floc3	0	42	20.9		79.1		1.8	

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A20Floc3	0	43	20.9	20.9	79.1	79.1	1.8	1.8
A20Floc3	5	44	21.7		78.3		1.8	
A20Floc3	5	45	21.4	21.5	78.6	78.5	2.0	1.9
A20Floc3	10	46	19.8		80.2		2.0	
A20Floc3	10	47	19.4	19.6	80.6	80.4	2.0	2.0
A20Floc3	15	48	21.7		78.3		2.0	
A20Floc3	15	49	21.2	21.4	78.8	78.6	3.0	2.5
A20Floc3	20	50	19.7		80.3		3.0	
A20Floc3	20	51	20.7	20.2	79.3	79.8	3.0	3.0
A20Floc4	0	52	23.7		76.3		1.8	
A20Floc4	0	53	23.8	23.8	76.2	76.2	1.8	1.8
A20Floc4	5	54	21.9		78.1		1.8	
A20Floc4	5	55	22.1	22.0	77.9	78.0	1.8	1.8
A20Floc4	10	56	21.8		78.2		2.3	
A20Floc4	10	57	21.7	21.7	78.3	78.3	2.3	2.3
A20Floc4	15	58	22.7		77.3		2.3	
A20Floc4	15	59	22.8	22.8	77.2	77.2	2.3	2.3
A20Floc4	20	60	21.9		78.1		1.8	
A20Floc4	20	61	21.9	21.9	78.1	78.1	2.0	1.9
A20Floc5	0	62	22.9		77.1		2.1	
A20Floc5	0	63	23.5	23.2	76.5	76.8	1.8	2.0
A20Floc5	5	64	22.5		77.5		2.1	
A20Floc5	5	65	22.7	22.6	77.3	77.4	1.9	2.0
A20Floc5	10	66	23.2		76.8		2.1	
A20Floc5	10	67	23.8	23.5	76.2	76.5	2.0	2.1

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A20Floc5	15	68	20.9		79.1		2.5	
A20Floc5	15	69	21.9	21.4	78.1	78.6	2.5	2.5
A20Floc5	20	70	20.7		79.3		2.0	
A20Floc5	20	71	20.6	20.6	79.4	79.4	2.0	2.0
A21Floc1	0	13	21.6		78.4		2.6	
A21Floc1	0	14	23.0	22.3	77.0	77.7	2.7	2.7
A21Floc1	5	15	22.5		77.5		3.0	
A21Floc1	5	16	22.4	22.5	77.6	77.5	3.2	3.1
A21Floc1	10	17	23.3		76.7		3.6	
A21Floc1	10	18	23.6	23.4	76.4	76.6	3.7	3.7
A21Floc1	15	19	21.2		78.8		3.9	
A21Floc1	15	20	22.1	21.6	77.9	78.4	4.0	4.0
A21Floc1	20	21	23.0		77.0		3.9	
A21Floc1	20	22	23.8	23.4	76.2	76.6	4.2	4.1
A21Floc2	0	33	23.8		76.2		3.2	
A21Floc2	0	34	23.2	23.5	76.8	76.5	3.0	3.1
A21Floc2	5	35	23.4		76.6		2.8	
A21Floc2	5	36	23.5	23.5	76.5	76.5	3.3	3.1
A21Floc2	10	37	23.7		76.3		2.9	
A21Floc2	10	38	25.8	24.8	74.2	75.2	2.5	2.7
A21Floc2	15	39	25.6		74.4		2.7	
A21Floc2	15	40	24.6	25.1	75.4	74.9	3.1	2.9
A21Floc2	20	41	23.4		76.6		2.4	
A21Floc2	20	42	23.8	23.6	76.2	76.4	3.0	2.7

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A21Floc3	0	43	24.2		75.8		2.5	
A21Floc3	0	44	23.5	23.9	76.5	76.1	2.3	2.4
A21Floc3	5	45	24.2		75.8		2.8	
A21Floc3	5	46	25.4	24.8	74.6	75.2	2.5	2.7
A21Floc3	10	47	24.1		75.9		2.5	
A21Floc3	10	48	25.5	24.8	74.5	75.2	2.5	2.5
A21Floc4	0	49	25.6		74.4		2.7	
A21Floc4	0	50	25.1	25.3	74.9	74.7	3.2	3.0
A21Floc4	5	51	24.5		75.5		2.8	
A21Floc4	5	52	25.6	25.1	74.4	74.9	2.9	2.9
A21Floc4	10	53	26.9		73.1		2.5	
A21Floc4	10	54	27.9	27.4	72.1	72.6	2.6	2.6
A21Floc4	15	55	26.3		73.7		2.9	
A21Floc4	15	62	28.3	27.3	71.7	72.7	2.5	2.7
A21Floc4	20	66	26.3		73.7		2.7	
A21Floc4	20	67	28.1	27.2	71.9	72.8	2.4	2.6
A23Floc1	45	29	23.2		76.8		3.3	
A23Floc1	45	30	22.2	22.7	77.8	77.3	3.3	3.3
A23Floc1	55	31	22.9		77.1		2.7	
A23Floc1	55	32	16.5	19.7	83.5	80.3	2.7	2.7
A23Floc1	60	33	23.7		76.3		4.0	
A23Floc1	60	34	23.8	23.8	76.2	76.2	4.0	4.0
A23Floc1	65	35	22.8		77.2		4.3	
A23Floc1	65	36	23.2	23.0	76.8	77.0	4.3	4.3

Table C4 Continued

Sample Id			Moisture content %	Avg. Moisture content %	Solids content %	Avg. Solids content %	Cake Thickness (cm)	Avg. Cake Thickness (cm)
A23Floc1	70	37	26.7		73.3		4.3	
A23Floc1	70	39	21.9	24.3	78.1	75.7	4.3	4.3
A23Floc1	75	40	22.0		78.0		4.3	
A23Floc1	75	41	21.8	21.9	78.2	78.1	4.3	4.3
A23Floc1	80	42	21.1		78.9		4.1	
A23Floc1	80	43	21.0	21.0	79.0	79.0	4.1	4.1
A24Floc1	0	23	22.6		77.4		8.0	
A24Floc1	0	24	22.8	22.7	77.2	77.3	8.0	8.0
A24Floc1	5	26	20.3		79.7		7.0	
A24Floc1	5	29	20.9	20.6	79.1	79.4	7.0	7.0
A24Floc1	10	31	21.5		78.5		7.0	
A24Floc1	10	32	22.2	21.9	77.8	78.1	7.0	7.0
A24Floc1	15	34	21.0		79.0		5.0	
A24Floc1	15	37	20.8	20.9	79.2	79.1	5.0	5.0
A24Floc2	0	38					8.0	
A24Floc2	0	39	21.3	21.3	78.7	78.7	8.0	8.0
A24Floc2	5	40	21.6		78.4		7.0	
A24Floc2	5	43	22.3	21.9	77.7	78.1	7.0	7.0
A24Floc2	10	46	21.0		79.0		2.5	
A24Floc2	10	48	22.7	21.9	77.3	78.1	2.5	2.5
A24Floc2	10	50	21.7		78.3		2.5	
A24Floc2	10	54	22.7	22.2	77.3	77.8	2.4	2.5

Table C5 - Process data for tests A19 to A24, Part III

Test ID	Time (min)	Filtrate Solids %	Feed Solids %	Discharge Rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A19Base1	0	0.9	41.8	98.8	298.3	78.1
A19Base1	5	0.9	44.6	101.2	327.7	76.5
A19Base1	10	0.9	43.1	128.6	295.8	67.0
A19Base1	15	0.9	44.9	154.2	273.5	71.6
A19Base1	20	0.9	43.3	146.5	247.7	54.9
A19Base2	0	1.0	42.1	66.2	253.8	77.3
A19Base2	5	0.7	26.2	40.9	179.2	66.7
A19Base2	10	0.8	24.1	43.5	172.3	64.1
A19Base2	15	0.6	25.6	45.9	175.9	53.9
A19Base2	15	0.6	25.9	53.6	179.4	52.1
A20Base	0	0.8	26.7	45.9	176.2	59.0
A20Base	5	0.7	28.3	46.7	177.4	67.6
A20Base	10	0.8	26.2	47.1	187.7	68.7
A20Base	15	0.9	25.1	34.8	159.4	59.5
A20Base	20	1.0	25.7	43.7	203.3	60.0
A21Base	0	0.7	39.1	60.1	227.6	44.0
A21Base	5	0.7	49.4	58.7	218.2	54.2
A21Base	10	0.6	43.4	67.0	207.2	36.8
A21Base	15	0.6	41.7	93.8	224.2	63.7
A21Base	20	0.8	40.8	75.2	219.4	64.1
A22Base	0	0.6	42.3	140.3	341.0	85.8
A22Base	5	0.8	45.5	130.5	276.5	117.3
A22Base	10	0.6	44.0	123.2	277.0	93.7

Table C5 Continued

Test ID	Time (min)	Filtrate Solids %	Feed Solids %	Discharge Rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A22Base	15	0.8	42.7	119.0	258.4	87.3
A22Base	20	0.5	43.9	120.9	272.8	103.1
A22Base	25	0.8	46.5	145.9	281.3	113.0
A22Base	30	0.8	44.1	169.2	275.4	122.2
A23Base	0	0.5	34.8	80.0	267.6	86.3
A23Base	15	0.4	36.0	52.0	303.2	83.6
A23Base	20	0.6	33.3	86.4	277.9	52.9
A23Base	25	0.8		64.5	286.6	98.6
A24Base	0	0.7	41.0	115.9	269.7	113.0
A24Base	5	0.7	39.6	108.7	266.4	74.3
A24Base	10	0.7	44.2	126.1	295.8	92.4
A24Base	15	0.7	42.1		269.2	101.0
A19Floc1	0	0.7	41.6	151.2	282.0	88.2
A19Floc1	5	0.6	43.0	131.3	334.8	74.4
A19Floc1	10	0.7	38.7	144.9	324.3	96.0
A19Floc1	15	0.8	41.4	118.8	370.2	99.6
A19Floc1	20	0.7	37.1	115.1	340.0	89.4
A19Floc2	0	0.5	29.9	35.2	272.3	45.9
A19Floc2	5	0.8	30.4	58.0	266.8	68.7
A19Floc2	10	0.6	31.2	58.6	256.8	66.0
A19Floc2	15	0.9	34.3	65.4	233.6	57.9
A19Floc2	20	0.7	29.1	61.2	244.2	57.9

Table C5 Continued

Test ID	Time (min)	Filtrate Solids %	Feed Solids %	Discharge Rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A19Floc3	0	0.7	27.6	64.9	154.1	111.9
A19Floc3	5	0.5	31.9	47.5	180.2	81.7
A19Floc3	10	0.9	34.1	62.5	152.4	99.7
A19Floc3	15	0.6	29.2	61.0	161.5	87.9
A19Floc3	20	0.9	29.8	55.0	146.2	87.7
A19Floc4	0	0.6	26.6	58.9	178.2	74.9
A19Floc4	5	0.5	22.1	52.9	172.0	58.9
A19Floc4	10	0.8	24.2	60.1	175.1	87.5
A19Floc4	15	0.4	25.3	60.8	183.1	103.1
A19Floc4	20	0.7	23.9	53.0	163.2	110.7
A19Floc5	0	0.9	22.5	49.6	138.4	61.9
A19Floc5	5	0.8	19.1	48.1	162.3	57.9
A19Floc5	10	1.0	20.7	51.1	179.4	82.5
A19Floc5	15	0.8	26.6	62.2	139.0	62.7
A19Floc5	20	0.7	24.6	56.3	148.7	71.7
A20Floc1	0	0.8	25.6	63.5	188.4	77.3
A20Floc1	5	0.9	24.3	58.3	203.4	70.5
A20Floc1	10	0.9	24.1	55.2	196.2	95.9
A20Floc1	15	0.9	23.7	57.1	202.3	101.3
A20Floc1	20	0.8	24.0	57.1	208.3	67.4
A20Floc2	0	0.7	26.1	52.1	178.4	71.3
A20Floc2	5	0.7	26.8	50.5	201.6	85.3
A20Floc2	10	0.8	27.5	65.8	209.6	71.6

Table C5 Continued

Test ID	Time (min)	Filtrate Solids %	Feed Solids %	Discharge Rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A20Floc2	15	0.8	27.4	58.2	207.4	89.3
A20Floc2	20	0.7	27.3	59.9	193.1	83.4
A20Floc3	0	0.7	27.3	37.0	161.0	68.7
A20Floc3	5	1.1	28.2	36.3	190.1	59.2
A20Floc3	10	0.6	28.7	29.0	192.1	56.1
A20Floc3	15	1.0	27.7	51.5	184.6	54.6
A20Floc3	20	1.1	23.6	47.3	184.8	47.8
A20Floc4	0	0.8	24.9	63.5	188.4	77.3
A20Floc4	5	1.1	32.5	58.3	203.4	70.5
A20Floc4	10	0.9	25.4	55.2	196.1	95.9
A20Floc4	15	0.6	25.7	57.5	202.3	101.3
A20Floc4	20	0.8	28.9	57.1	208.3	67.4
A20Floc5	0	0.7	22.9	49.2	179.7	87.0
A20Floc5	5	1.0	26.9	44.3	189.3	102.6
A20Floc5	10	0.9	34.6	50.1	182.1	73.7
A20Floc5	15	0.8	25.3	51.2	184.6	78.9
A20Floc5	20	0.8	25.3	44.6	184.6	78.9
A21Floc1	0	0.9	38.0	78.8	261.2	61.8
A21Floc1	5	0.7	35.9	90.4	240.8	92.1
A21Floc1	10	0.8	24.2	43.1	247.8	104.7
A21Floc1	15	0.7	38.1	72.7	246.0	93.9
A21Floc1	20	0.7	35.9	80.5	232.3	62.9

Table C5 Continued

Test ID	Time (min)	Filtrate Solids %	Feed Solids %	Discharge Rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A21Floc2	0	0.6	26.3	63.7	234.7	75.5
A21Floc2	5	0.7	28.0	53.9	205.2	67.1
A21Floc2	10	0.6	20.0	56.3	234.7	74.3
A21Floc2	15	0.8	25.4	53.9	203.6	84.5
A21Floc2	20	0.6	26.1	50.9	198.0	65.3
A21Floc3	0	0.6	28.2	52.3	183.8	76.1
A21Floc3	5	0.6	25.7	56.1	209.8	68.8
A21Floc3	10	0.8	26.8	53.0	206.1	63.0
A21Floc4	0	0.9	24.8	59.3	230.5	60.8
A21Floc4	5	0.6	24.7	52.6	224.4	49.2
A21Floc4	10	0.9	25.3	56.9	236.7	59.5
A21Floc4	15	1.0	25.3	57.5	244.3	64.3
A21Floc4	20	0.9	24.9	58.0	240.8	87.8
A23Floc1	45	0.6	35.6	83.7	322.7	77.8
A23Floc1	55	0.4	32.9	103.3	332.1	43.9
A23Floc1	60	0.5	33.1	97.9	323.6	107.8
A23Floc1	65	0.3	32.5	98.0	321.1	149.5
A23Floc1	70	0.1	36.4	73.0	333.1	102.9
A24Floc1	0	0.6	38.3		263.4	153.7
A24Floc1	5	0.6	41.6		276.0	92.3
A24Floc1	10	0.7	28.9		303.7	156.1
A24Floc2	0	0.6	44.0	175.5	283.8	137.4

Table C5 Continued

Test ID	Time (min)	Filtrate Solids %	Feed Solids %	Discharge Rate (kg/min)	Feed Rate (kg/min)	Filtrate Rate (kg/min)
A24Floc2	5	0.6	22.7	155.1	274.4	151.2
A24Floc2	10	0.6	19.0	84.8	278.5	102.4

Table C6 - Combined results for tests A19 to A24, Part III

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Vacuum Drying ("Hg)	Retention time (RPM)
A19Base1	0	41.8	0.9	0.0	80.4	5.0	98.8	191.8	93.0	99.0	17	17	0.73
A19Base1	5	44.6	0.9	0.0	80.2	4.3	101.2	183.6	82.4	99.1	17	17	0.73
A19Base1	10	43.1	0.9	0.0	81.3	4.8	128.6	244.8	116.2	99.0	18	17	0.73
A19Base1	15	44.9	0.9	0.0	79.2	4.8	154.2	274.5	120.4	99.2	16	16	0.73
A19Base1	20	43.3	0.9	0.0	79.4	4.5	146.5	271.0	124.4	99.1	18	16	0.73
A19Base2	0	42.1	1.0	0.00	78.0	3.8	66.2	124.1	57.9	98.9	17	17	0.73
A19Base2	5	26.2	0.7	0.00	78.3	2.8	40.9	124.4	83.5	98.3	18	15	0.73
A19Base2	10	24.1	0.6	0.00	78.6	2.5	43.5	144.1	100.6	98.4	18	17	0.73
A19Base2	15	25.6	0.6	0.00	79.1	2.3	45.9	144.2	98.4	98.4	17	16	0.73
A19Base2	15	25.9	0.6	0.00	78.9	2.3	53.6	165.9	112.4	98.5	16	14	0.73
A20Base	0	26.7	0.8	0.00	78.9	2.0	45.9	138.5	92.5	97.9	15	16	0.73
A20Base	5	28.3	0.7	0.00	81.0	2.3	46.7	135.9	89.2	98.4	16	16	0.73
A20Base	10	26.2	0.9	0.00	78.7	3.0	47.1	144.8	97.7	97.6	17	17	0.73
A20Base	15	25.1	1.0	0.00	78.7	3.0	34.8	112.3	77.5	97.2	17	17	0.73
A20Base	20	25.7	1.0	0.00	80.1	2.0	43.7	140.0	96.3	97.2	17	17	0.73
A21Base	0	39.1	0.7	0.00	80.1	2.7	60.1	124.3	64.2	99.1	15	15	0.73
A21Base	5	49.4	0.7	0.00	80.9	3.1	58.7	96.6	37.9	99.4	15	15	0.73
A21Base	10	43.4	0.6	0.00	80.6	3.7	67.0	125.2	58.2	99.3	15	15	0.73
A21Base	15	41.7	0.8	0.00	78.8	4.0	93.8	178.9	85.1	99.1	15	15	0.73
A21Base	20	40.8	0.8	0.00	79.8	4.1	75.2	148.6	73.4	99.1	15	15	0.73
A22Base	0	42.3	0.6	0.00	81.4	6.0	140.3	272.0	131.8	99.3	13	15	0.73
A22Base	5	45.5	0.8	0.00	80.7	6.5	130.5	233.1	102.6	99.2	15	15	0.73
A22Base	10	44.0	0.8	0.00	78.8	7.3	123.2	222.3	99.1	99.2	17	17	0.73

Table C6 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Vacuum Drying ("Hg)	Retention time (RPM)
A22Base	15	42.7	0.5	0.00	80.9	6.8	119.0	227.2	108.1	99.4	15	17	0.73
A22Base	20	43.9	0.5	0.00	77.5	7.5	120.9	214.4	93.5	99.5	15	16	0.73
A22Base	25	46.5	0.8	0.00	80.5	6.8	145.9	254.7	108.9	99.3	15	17	0.73
A22Base	30	44.1	0.8	0.00	77.4	7.5	169.2	299.5	130.3	99.2	15	15	0.73
A23Base	0	34.8	0.5	0.00	80.0	4.0	80.0	185.6	105.6	99.1	15	15	0.73
A23Base	15	36.0	0.4	0.00	79.4	5.3	52.0	115.6	63.6	99.4	15	15	0.73
A23Base	20	33.3	0.8	0.00	79.5	3.6	86.4	209.4	123.0	98.6	15	15	0.73
A23Base					79.5	3.7	64.5				15	15	0.73
A24Base	0	41.0	0.7	0.00	80.7	5.0	115.9	229.7	113.8	99.2	17	16	0.73
A24Base	5	39.6	0.7	0.00	80.2	5.0	108.7	221.9	113.2	99.1	18	16	0.73
A24Base	10	44.2	0.7	0.00	79.5	5.8	126.1	228.7	102.5	99.3	18	16	0.73
A24Base	15	42.1	0.7	0.00	79.4	5.0	5.0				14	15	0.73
A19Floc1	0	41.6	0.7	54.96	76.8	5.3	151.2	281.5	130.3	99.2	15	12	0.73
A19Floc1	5	43.0	0.6	44.74	76.8	5.0	131.3	235.9	104.5	99.4	15	12	0.73
A19Floc1	10	38.7	0.8	51.31	77.5	5.0	144.9	292.9	147.9	99.0	15	13	0.73
A19Floc1	15	41.4	0.7	42.08	83.4	5.5	118.8	241.7	122.9	99.1	15	12	0.73
A19Floc1	20	37.1	0.7	51.15	78.3	5.5	115.1	245.8	130.6	98.9	16	13	0.73
A19Floc2	0	29.9	0.5	20.46	80.3	2.0	35.2	95.4	60.2	99.0	15	12	0.73
A19Floc2	5	30.4	0.8	20.52	78.4	1.9	58.0	151.8	93.9	98.3	15	12	0.73
A19Floc2	10	31.2	0.9	20.84	79.3	2.1	58.6	151.8	93.2	98.2	15	13	0.73
A19Floc2	15	34.3	0.7	20.83	79.0	2.0	65.4	152.6	87.2	98.8	15	12	0.73
A19Floc2	20	29.1	0.7	23.48	79.4	2.8	61.2	169.8	108.6	98.5	16	13	0.73

Table C6 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Vacuum Drying ("Hg)	Retention time (RPM)
A19Floc3	0	27.6	0.7	64.75	78.2	4.0	64.9	187.1	122.2	98.4	15	15	0.73
A19Floc3	5	31.9	0.5	47.79	78.3	3.8	47.5	117.6	70.2	99.0	15	15	0.73
A19Floc3	10	34.1	0.6	52.83	78.6	4.0	62.5	145.3	82.8	98.9	15	13	0.73
A19Floc3	15	29.2	0.9	58.36	77.6	4.0	61.0	165.4	104.5	98.0	13	13	0.73
A19Floc3	20	29.8	0.9	63.19	77.8	3.0	55.0	146.6	91.6	98.1	15	15	0.73
A19Floc4	0	26.6	0.6	132.72	76.1	2.3	58.9	171.1	112.2	98.5	12	12	0.73
A19Floc4	5	22.1	0.5	165.60	76.2	2.8	52.9	185.5	132.6	98.3	15	15	0.73
A19Floc4	10	24.2	0.4	148.41	76.5	3.0	60.1	192.1	132.0	98.9	15	12	0.73
A19Floc4	15	25.3	0.7	136.10	75.9	3.0	60.8	186.3	125.5	98.0	15	15	0.73
A19Floc4	20	23.9	0.7	161.62	75.5	3.0	53.0	171.2	118.2	97.9	13	12	0.73
A19Floc5	0	22.5	0.9	160.48	72.1	2.0	49.6	163.2	113.6	97.2	17	17	0.73
A19Floc5	5	19.1	0.8	161.10	74.3	2.3	48.1	193.3	145.1	96.8	17	13	0.73
A19Floc5	10	20.7	0.8	134.36	73.7	2.1	51.1	187.0	135.9	97.2	14	13	0.73
A19Floc5	15	26.6	0.7	135.00	73.8	2.1	62.2	175.2	113.1	98.3	15	14	0.73
A19Floc5	20	24.6	0.7	136.87	73.7	2.1	56.3	172.3	116.0	98.1	14	13	0.73
A20Floc1	0	25.6	0.8	134.41	78.4	2.5	63.5	198.4	134.8	97.9	15	16	0.73
A20Floc1	5	24.3	0.9	131.17	77.2	3.0	58.3	190.1	131.8	97.3	14	13	0.73
A20Floc1	10	24.1	0.9	137.55	75.5	2.7	55.2	178.0	122.7	97.4	16	13	0.73
A20Floc1	15	23.7	0.8	135.54	76.3	3.0	57.1	188.8	131.7	97.5	15	13	0.73
A20Floc1	20	24.0	0.8	129.66	75.8	2.8	57.1	184.4	127.3	97.6	16	16	0.73
A20Floc2	0	26.1	0.7	69.18	78.1	2.0	52.1	159.3	107.2	98.1	15	15	0.73
A20Floc2	5	26.8	0.7	59.50	78.7	2.5	50.5	150.8	100.4	98.2	17	15	0.73
A20Floc2	10	27.5	0.8	55.67	79.1	2.5	65.8	192.5	126.8	98.1	15	15	0.73

Table C6 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Vacuum Drying ("Hg)	Retention time (RPM)
A20Floc2	15	27.4	0.7	56.56	78.2	3.0	58.2	168.9	110.7	98.3	15	15	0.73
A20Floc2	20	27.3	0.7	61.06	79.8	2.7	59.9	178.3	118.4	98.3	15	15	0.73
A20Floc3	0	27.3	0.7	95.16	79.1	1.8	37.0	109.2	72.2	98.2	18	18	0.73
A20Floc3	5	28.2	1.1	77.81	78.5	1.9	36.3	103.4	67.1	97.6	17	17	0.73
A20Floc3	10	28.7	1.0	75.84	80.4	2.0	29.0	83.2	54.2	97.8	18	15	0.73
A20Floc3	15	27.7	1.1	81.58	78.6	2.5	51.5	149.9	98.4	97.3	15	15	0.73
A20Floc3	20	23.6	1.1	95.95	79.8	3.0	47.3	166.2	118.8	96.6	15	15	0.73
A20Floc4	0	24.9	0.8	118.02	76.2	1.8	63.5	199.1	135.6	97.7	15	15	0.73
A20Floc4	5	32.5	1.1	83.62	78.0	1.8	58.3	142.5	84.2	98.0	15	15	0.73
A20Floc4	10	25.4	0.6	111.15	78.3	2.3	55.2	173.0	117.8	98.4	17	15	0.73
A20Floc4	15	25.7	0.8	106.40	77.2	2.3	57.5	176.4	118.9	97.9	15	15	0.73
A20Floc4	20	28.9	0.8	92.02	78.1	1.9	57.1	157.2	100.1	98.2	15	15	0.73
A20Floc5	0	22.9	0.7	157.76	76.8	2.0	49.2	168.5	119.3	97.8	15	15	0.73
A20Floc5	5	26.9	1.0	127.64	77.4	2.0	44.3	130.8	86.5	97.5	15	17	0.73
A20Floc5	10	34.6	0.8	103.37	76.5	2.1	50.1	112.3	62.2	98.8	15	15	0.73
A20Floc5	15	25.3	0.8	139.28	78.6	2.5	51.2	162.4	111.2	97.9	15	15	0.73
A20Floc5	20	25.3	0.8	139.28	79.4	2.0	44.6	143.1	98.4	97.9	15	15	0.73
A21Floc1	0	38.0	0.9	23.66	77.7	2.7	78.8	163.3	84.5	98.8	15	15	0.73
A21Floc1	5	35.9	0.7	27.18	77.5	3.1	90.4	197.6	107.2	98.9	17	15	0.73
A21Floc1	10	24.2	0.7	39.17	76.6	3.7	43.1	139.1	96.0	98.1	15	15	0.73
A21Floc1	15	38.1	0.7	25.03	78.4	4.0	72.7	150.8	78.1	99.0	15	15	0.73
A21Floc1	20	35.9	0.7	28.16	76.6	4.1	80.5	173.7	93.2	98.9	15	15	0.73

Table C6 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Vacuum Drying ("Hg)	Retention time (RPM)
A21Floc2	0	26.3	0.6	84.48	76.5	3.1	63.7	187.8	124.2	98.6	14	14	0.73
A21Floc2	5	28.0	0.7	90.59	76.5	3.1	53.9	149.5	95.6	98.4	15	12	0.73
A21Floc2	10	20.0	0.8	111.14	75.2	2.7	56.3	218.2	161.9	97.1	15	14	0.73
A21Floc2	15	25.4	0.6	100.88	74.9	2.9	53.9	161.5	107.6	98.5	15	15	0.73
A21Floc2	20	26.1	0.6	100.69	76.4	2.7	50.9	151.2	100.2	98.6	15	14	0.73
A21Floc3	0	28.2	0.6	124.57	76.1	2.4	52.3	143.1	90.8	98.6	15	15	0.73
A21Floc3	5	25.7	0.6	119.94	75.2	2.7	56.1	166.9	110.8	98.3	14	14	0.73
A21Floc3	10	26.8	0.0	117.19	75.2	2.5	53.0	148.8	95.8	100.0	15	14	0.73
A21Floc4	0	24.8	0.9	121.27	74.7	3.0	59.3	182.8	123.4	97.6	15	13	0.73
A21Floc4	5	24.7	0.6	125.14	74.9	2.9	52.6	162.1	109.6	98.2	15	13	0.73
A21Floc4	10	25.3	1.0	116.15	72.6	2.6	56.9	168.1	111.2	97.3	16	13	0.73
A21Floc4	15	25.3	0.9	112.27	72.7	2.7	57.5	169.2	111.6	97.7	15	12	0.73
A21Floc4	20	24.9	0.9	115.92	72.8	2.6	58.0	173.9	115.9	97.6	15	12	0.73
A23Floc1	45	35.6	0.6	49.25	77.3	3.3	83.7	183.3	99.6	99.1	15	15	0.73
A23Floc1	55	32.9	0.4	51.79	80.3	2.7	103.3	253.6	150.3	99.3	15	15	0.73
A23Floc1	60	33.1	0.3	52.94	76.2	4.0	97.9	227.0	129.1	99.5	15	15	0.73
A23Floc1	65	32.5	0.1	54.28	77.0	4.3	98.0	232.8	134.8	99.8	18	15	0.73
A23Floc1	70	36.4	0.1	46.65	75.7	4.3	73.0	152.1	79.0	99.8	15	15	0.73
A24Floc1	0	38.3	0.6	44.84	77.2	8.0	175.5	356.5	181.0	99.1	17	17	0.73
A24Floc1	5	41.6	0.6	39.46	79.1	7.0	167.5	321.3	153.7	99.3	15	14	0.73
A24Floc1	10	28.9	0.0	51.62	77.8	7.0	80.1	215.6	135.5	100.0	16	15	0.73
A24Floc2	0	44.0	0.6	22.74	78.7	8.0	155.1	279.1	124.0	99.4	17	14	0.73

Table C6 Continued

Test ID	Test Time (min)	Feed Solids (%)	Filtrate Solids (%)	Clcd.Floc Dosage (g/tonne)	Cake Solids (%)	Cake Thickness (cm)	Discharge Qc (kg/min)	Qf (kg/min)	Qk (kg/min)	Recovery (%)	Vacuum Forming ("Hg)	Vacuum Drying ("Hg)	Retention time (RPM)
A24Floc2	5	22.7	0.6	45.51	78.1	7.0	84.8	297.3	212.5	98.0	15	15	0.73
A24Floc2	10	19.0	0.6	53.52	78.1	2.5	32.8	138.2	105.4	97.4	15	14	0.73

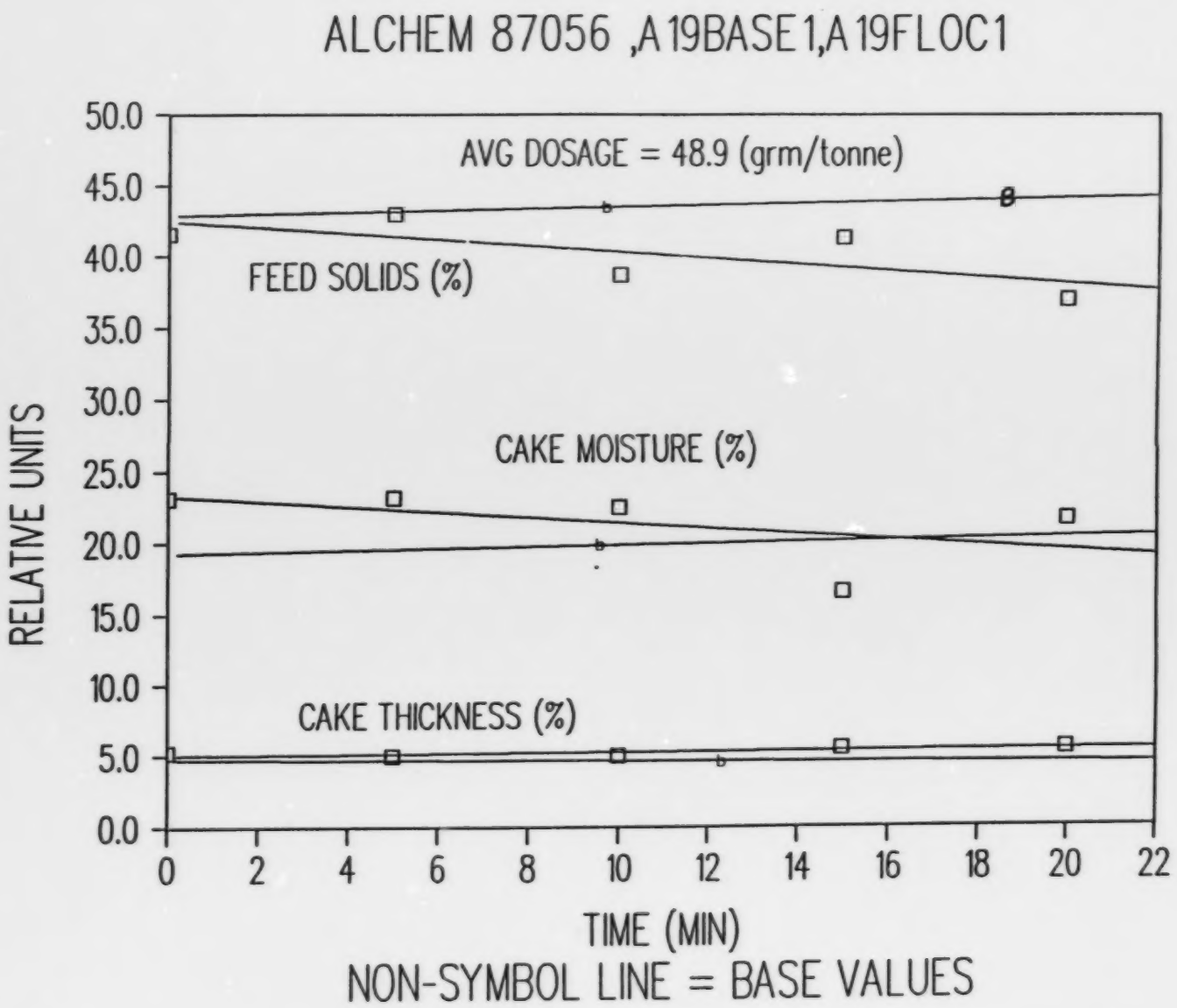

Figure C1 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (48.9 g/tonne) - Alchem 87056, A19 Base 1, A19 Floc 1

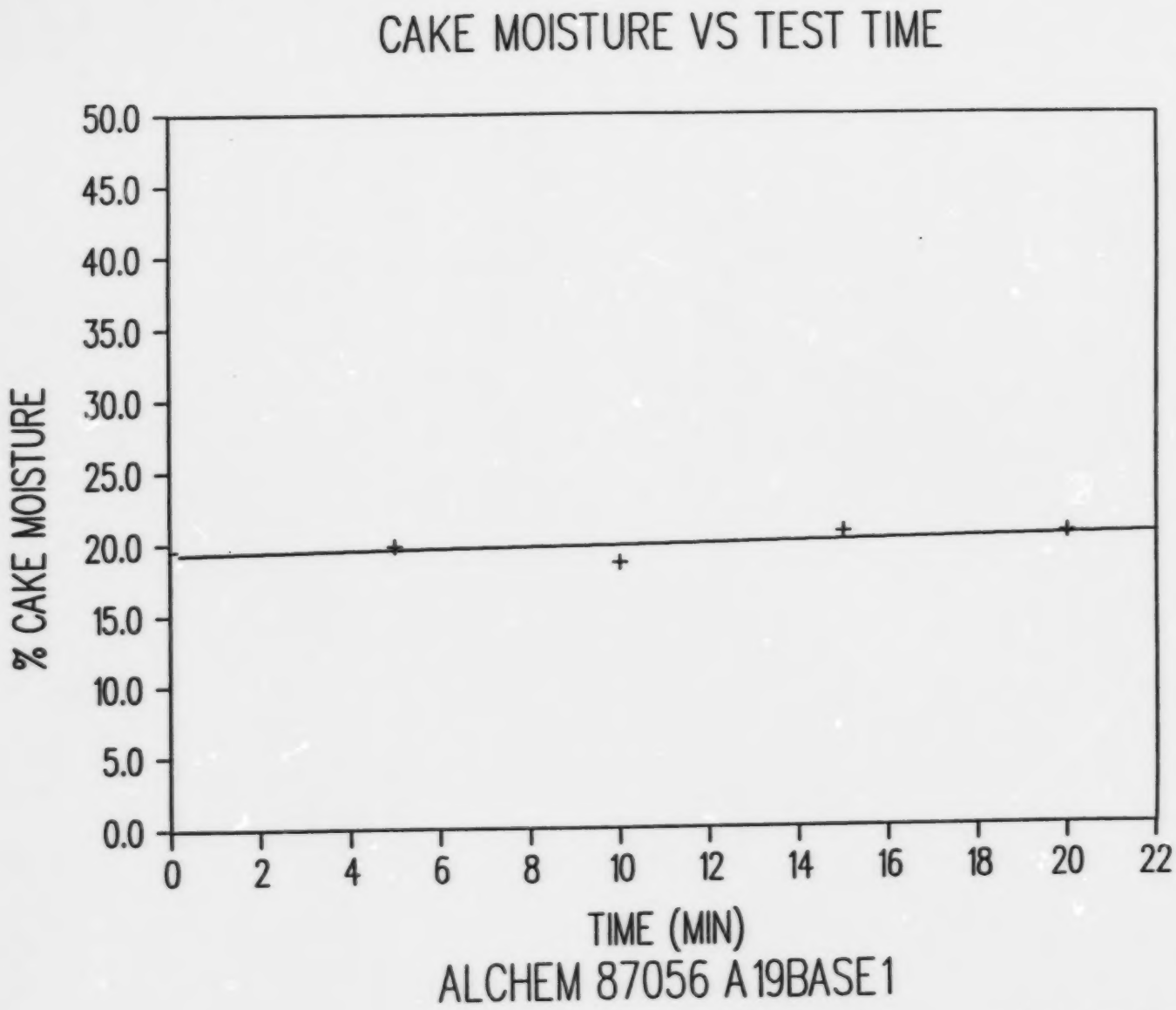

Figure C2 - Cake moisture vs test time at flocculant dosage (0 g/tonne) - Alchem 87056, A19 Base 1

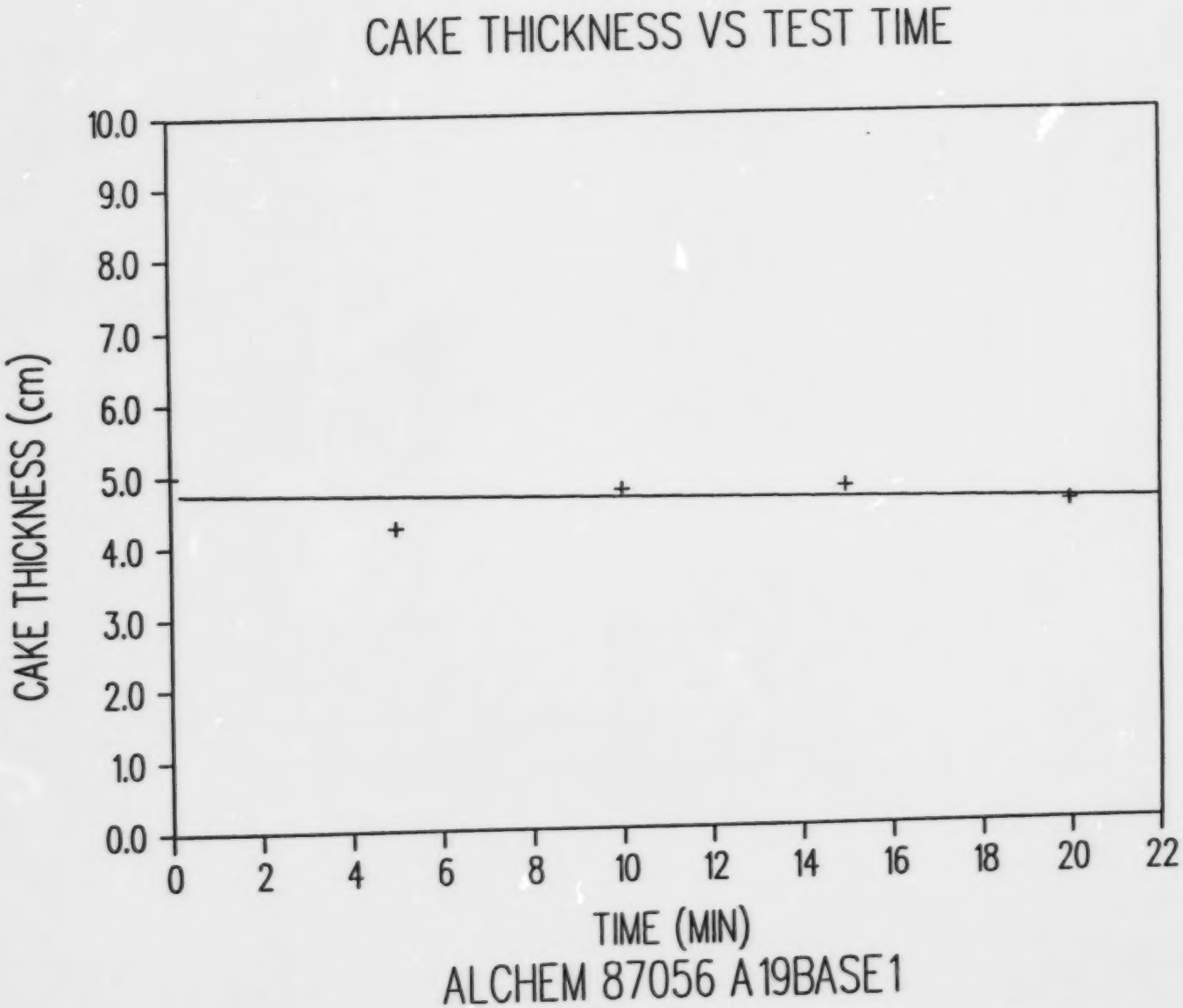

Figure C3 - Cake thickness vs test time at flocculant dosage (0 g/tonne) - Alchem 87056, A19 Base 1

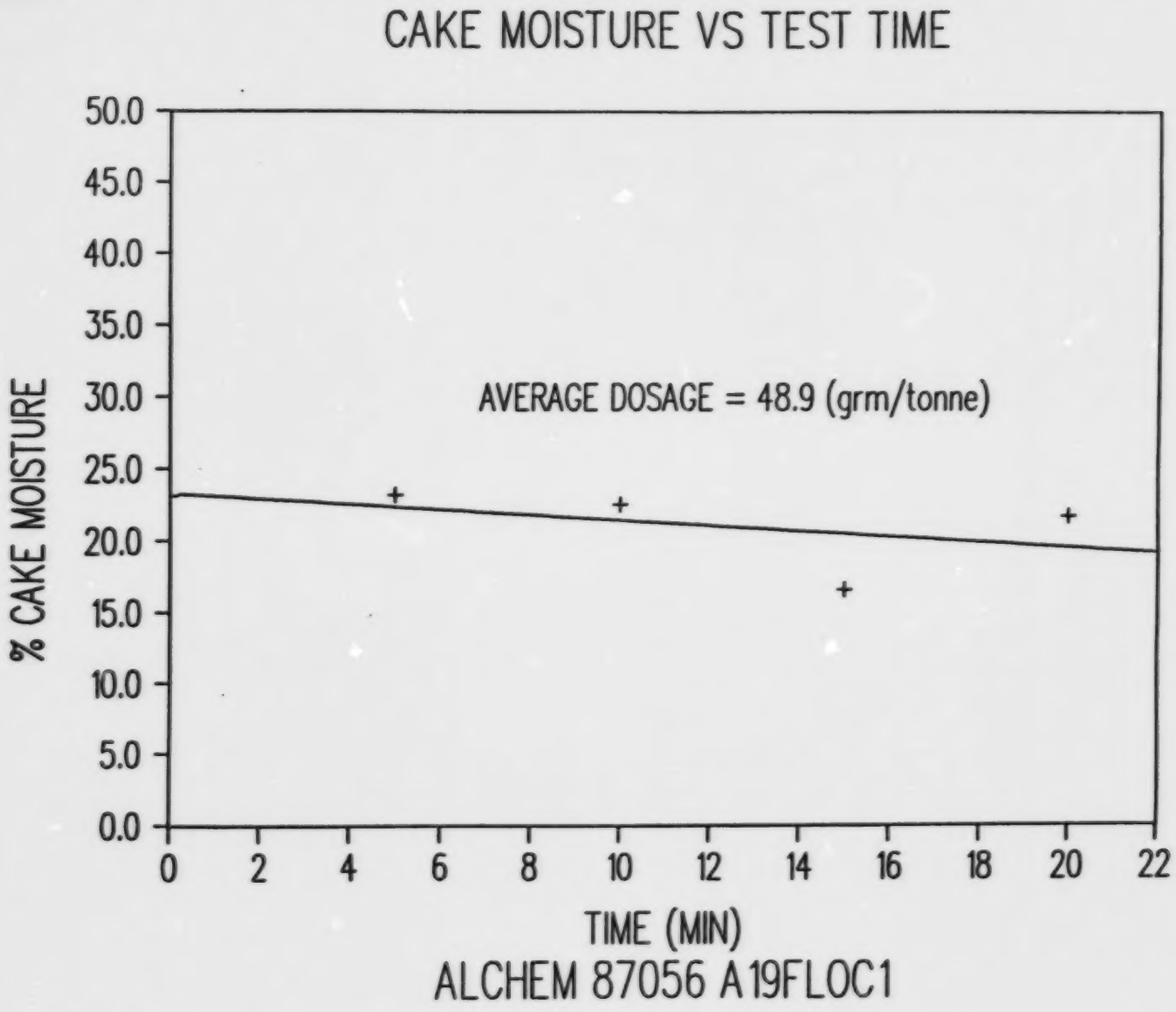

Figure C4 - Cake moisture vs test time at flocculant dosage (48.9 g/tonne) - Alchem 87056, A19 Floc 1

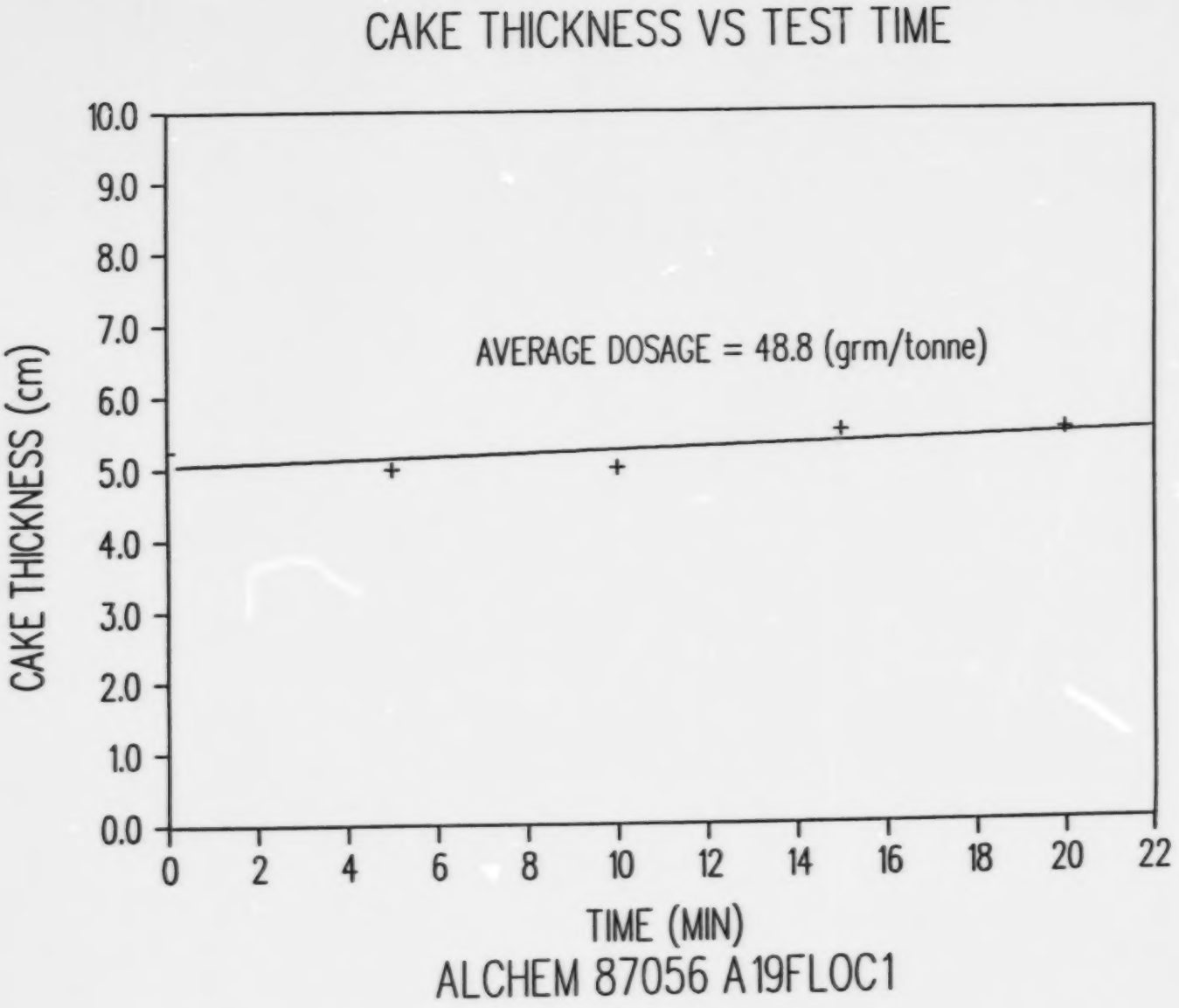

Figure C5 - Cake thickness vs test time at flocculant dosage (48.8 g/tonne) - Alchem 87056, A19 Floc 1

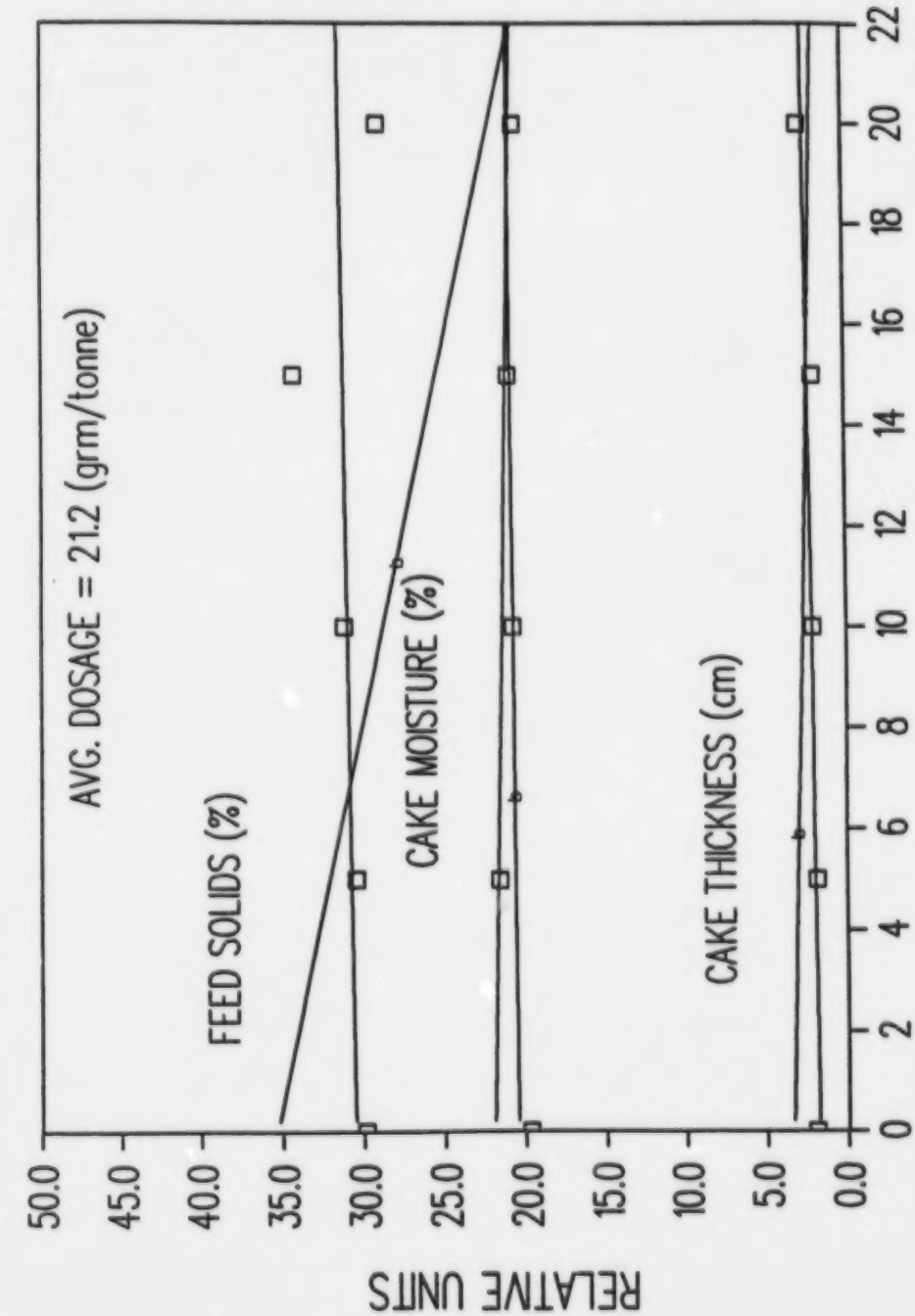

Figure C6 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (21.2 g/tonne) - Alchem 87056, A19 Base 2, A19 Floc 2

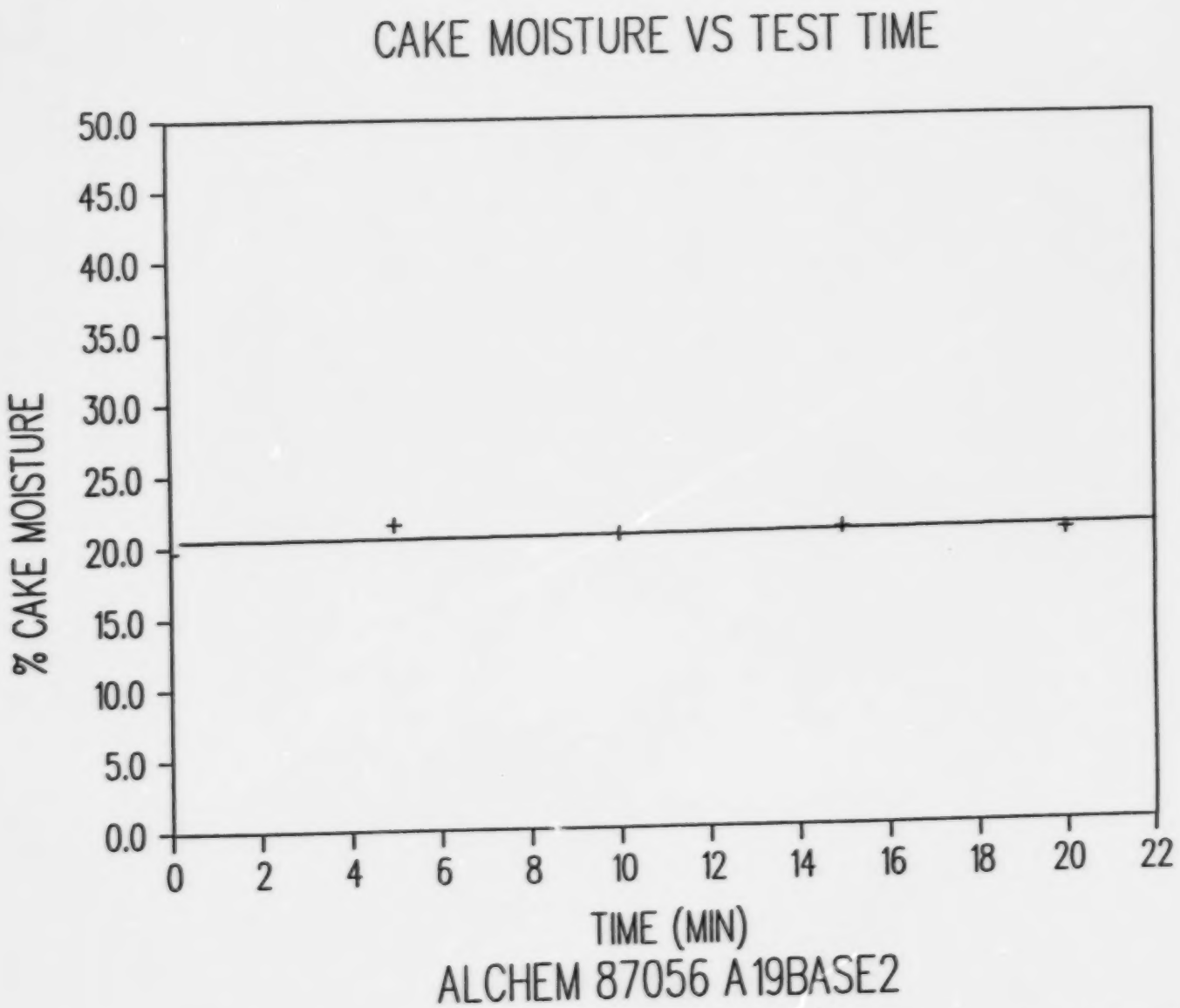

Figure C7 - Cake moisture vs test time at flocculant dosage (0 g/tonne) - Alchem 87056, A19 Base 2

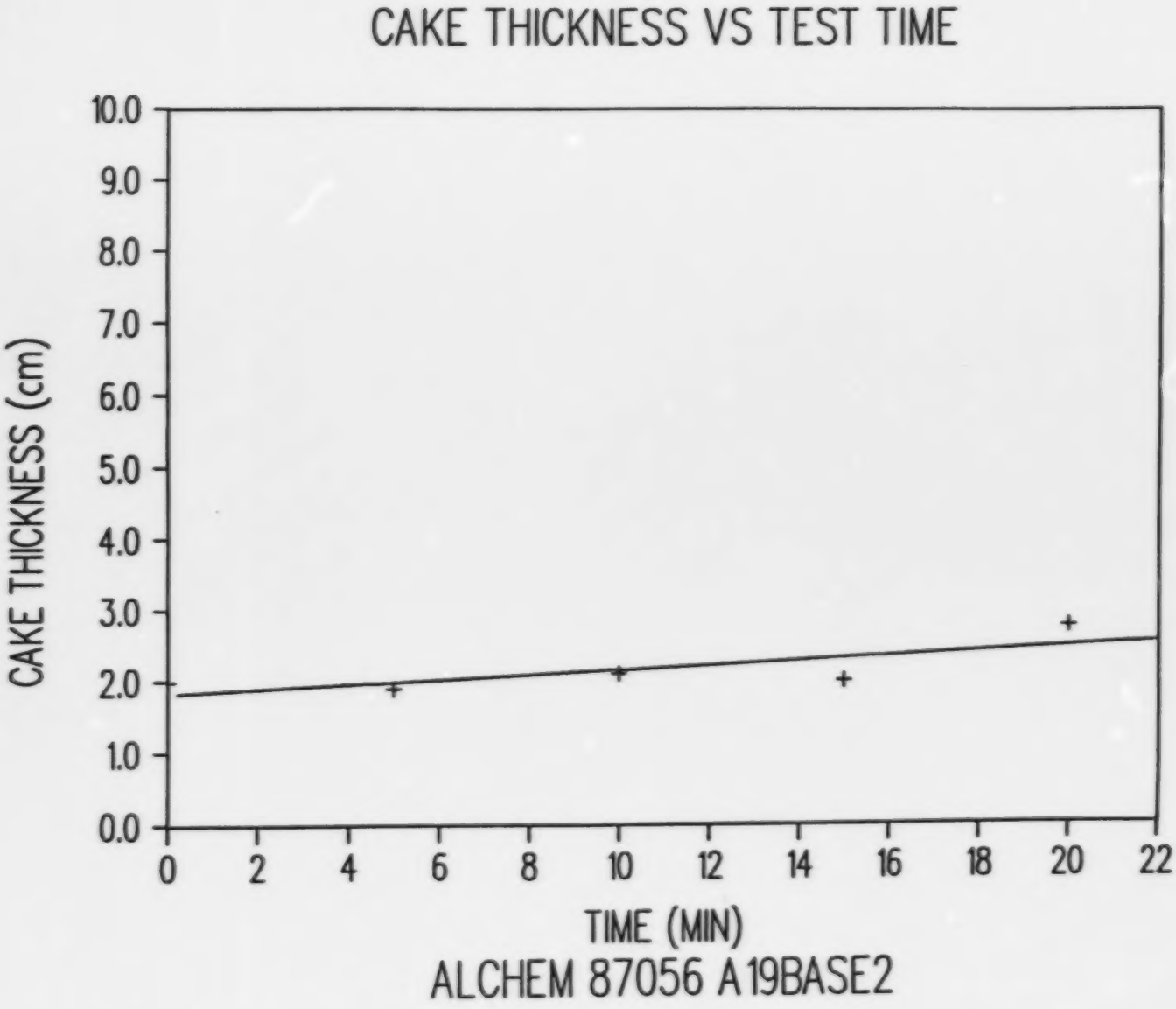

Figure C8 - Cake thickness vs test time at flocculant dosage (0 g/tonne) - Alchem 87056, A19 Base 2

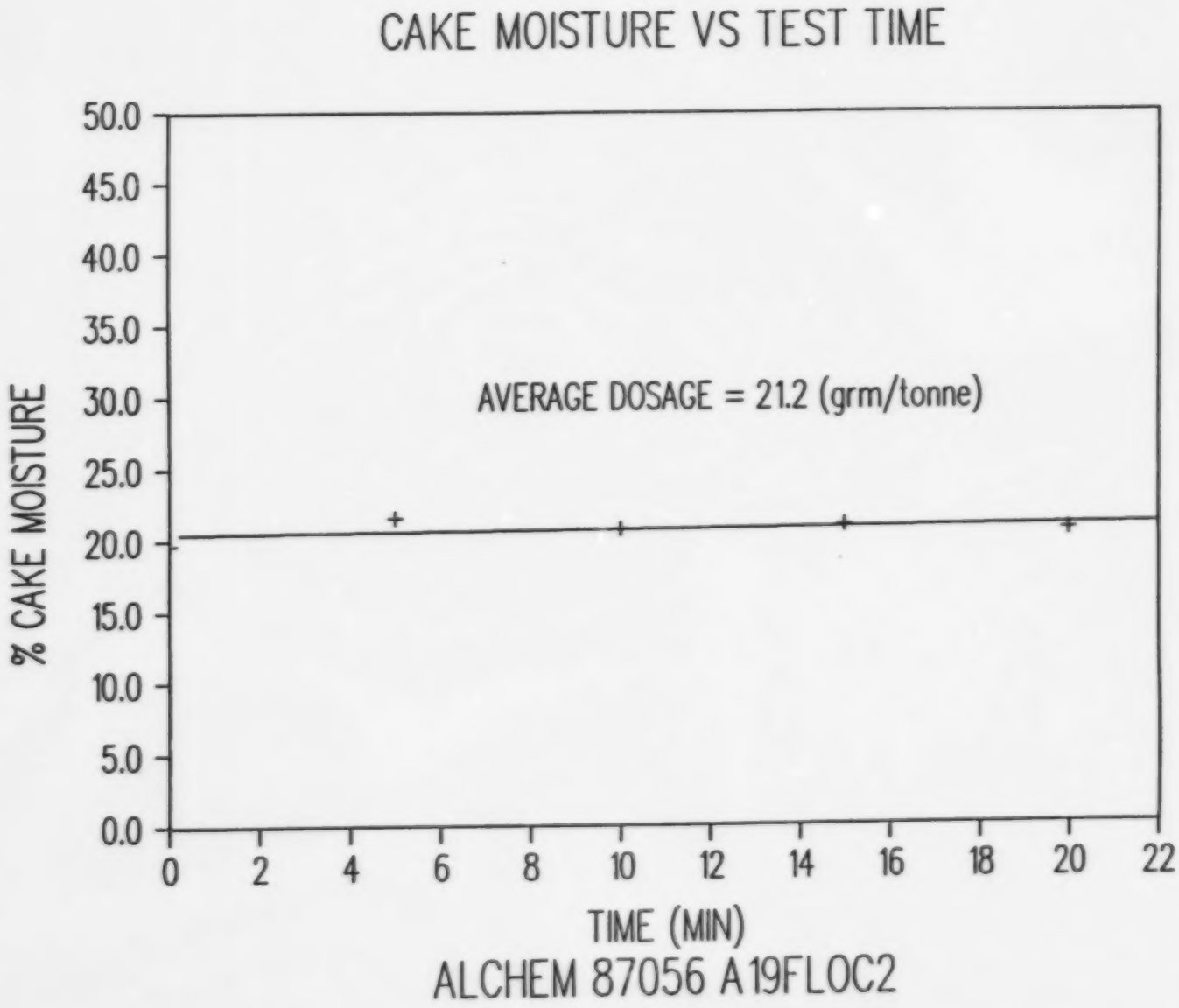

Figure C9 - Cake moisture vs test time of flocculant dosage (21.2 g/tonne) - Alchem 87056, A19 Floc 2

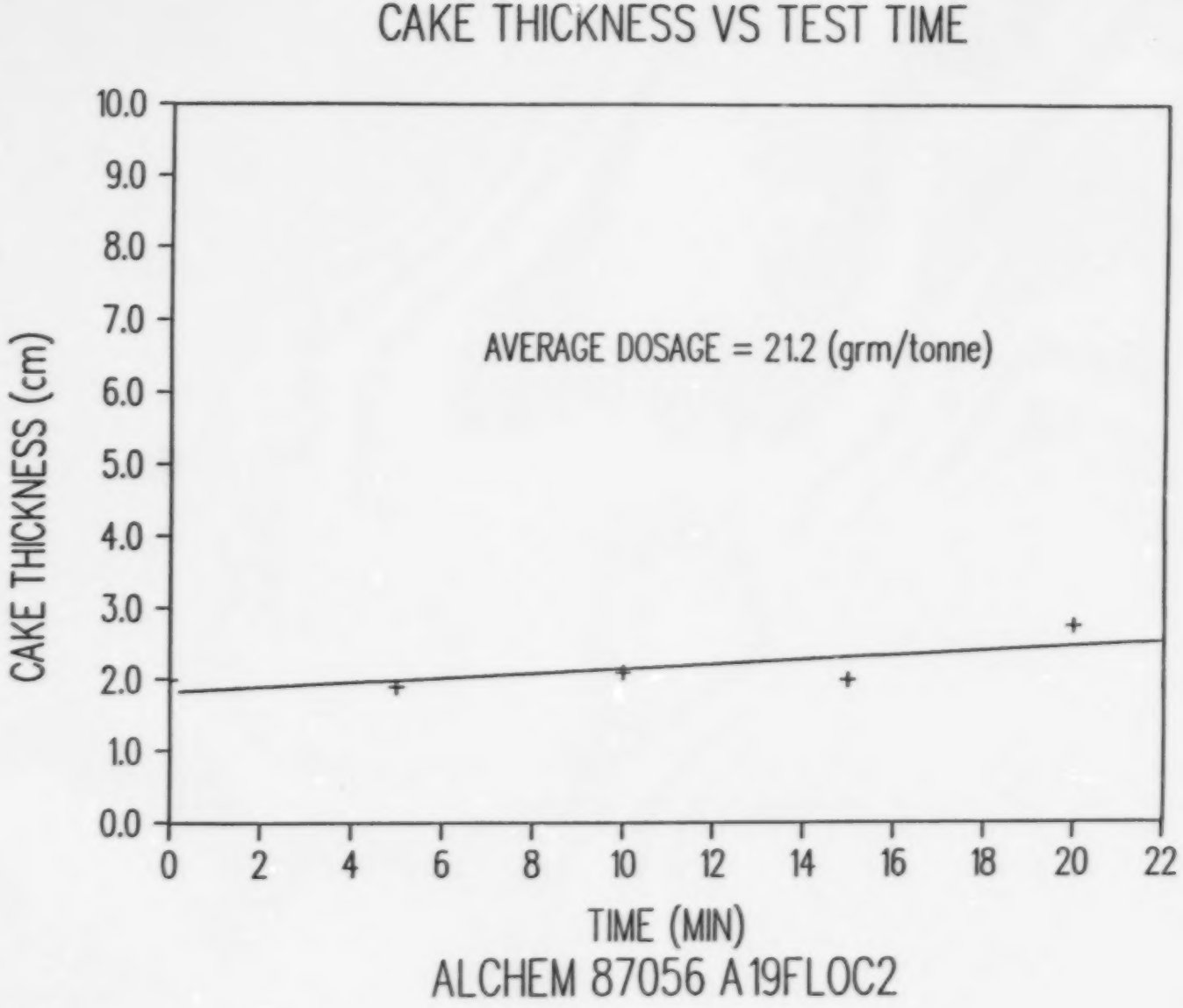

Figure C10 - Cake thickness vs test time at flocculant dosage (21.2 g/tonne) - Alchem 87056, A19 Floc 2

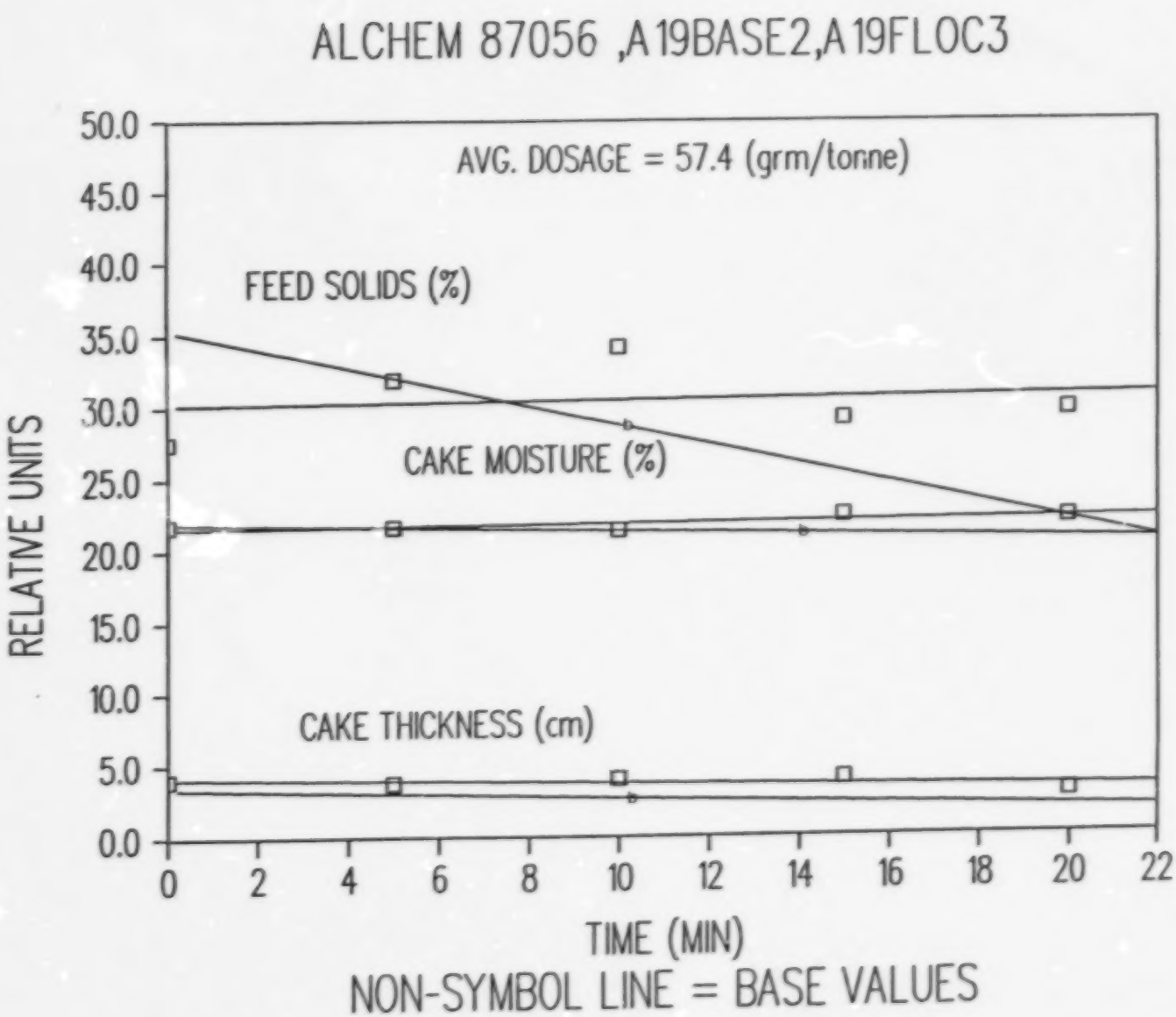

Figure C11 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (57.4 g/tonne) - Alchem 87056, A19 Base 2, A19 Floc 3

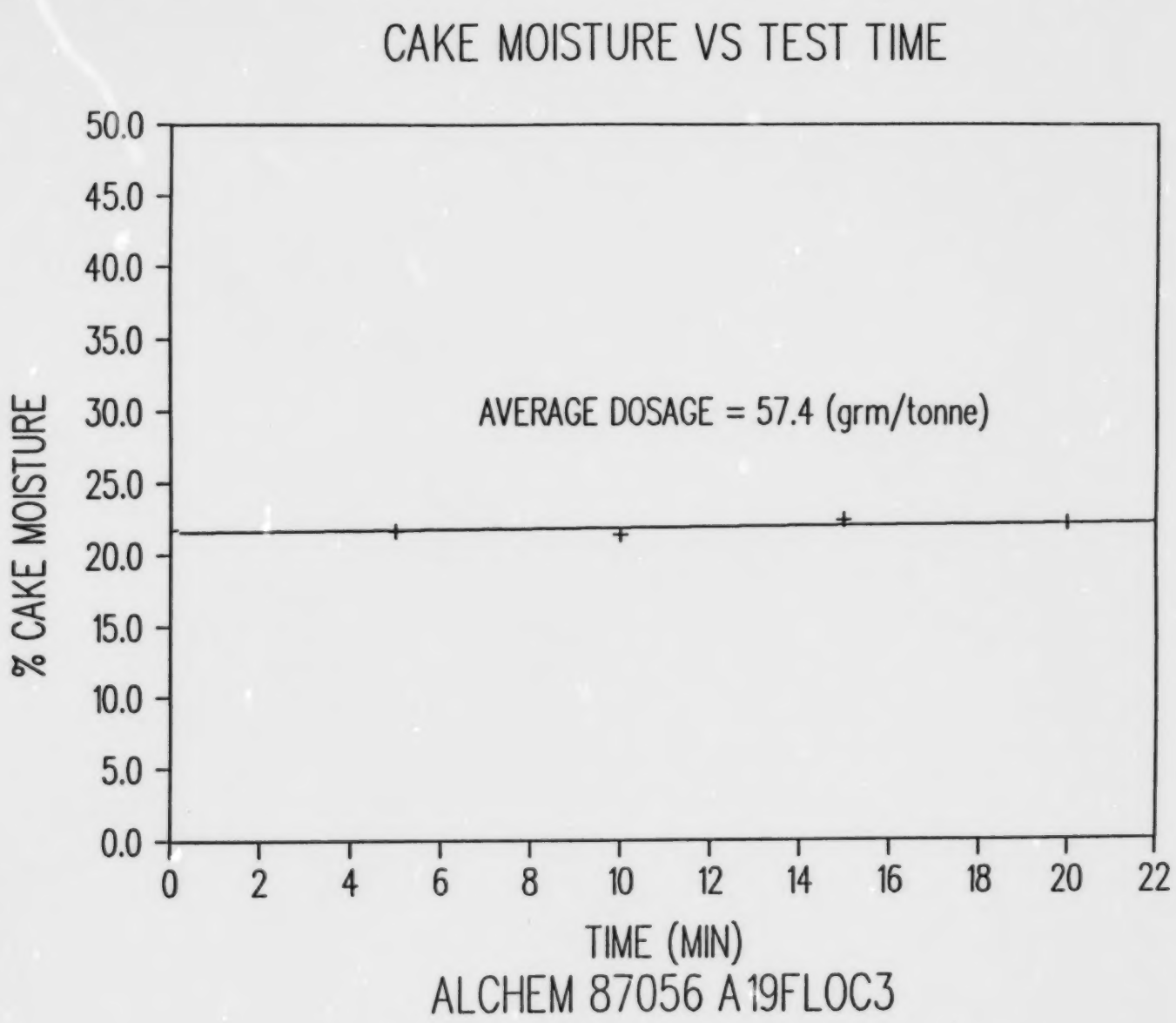

Figure C12 - Cake moisture vs test time at flocculant dosage (57.4 g/tonne) - Alchem 87056, A19 Floc 3

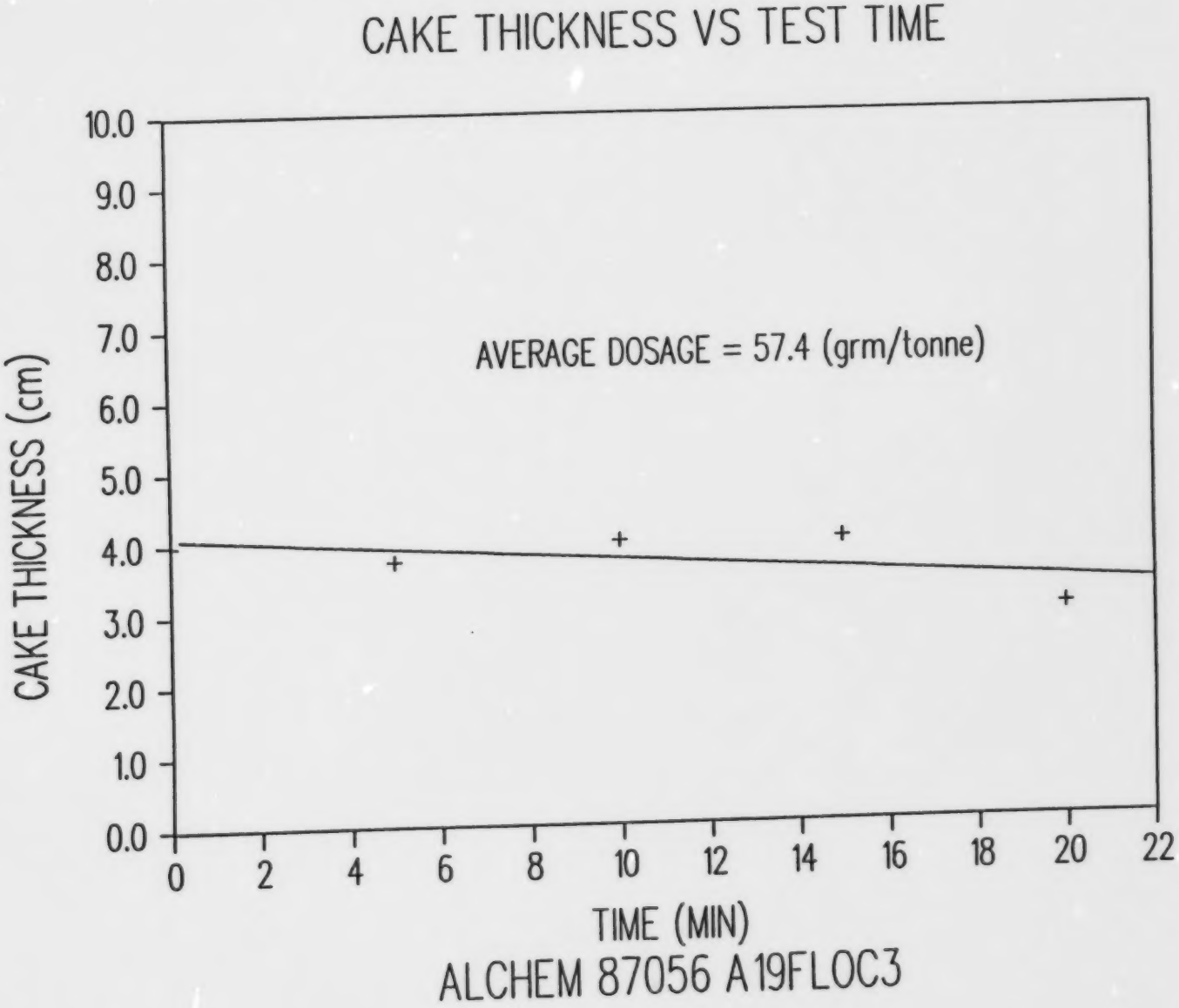

Figure C13 - Cake thickness vs test time at flocculant dosage (57.4 g/tonne) - Alchem 87056, A19 Floc 3

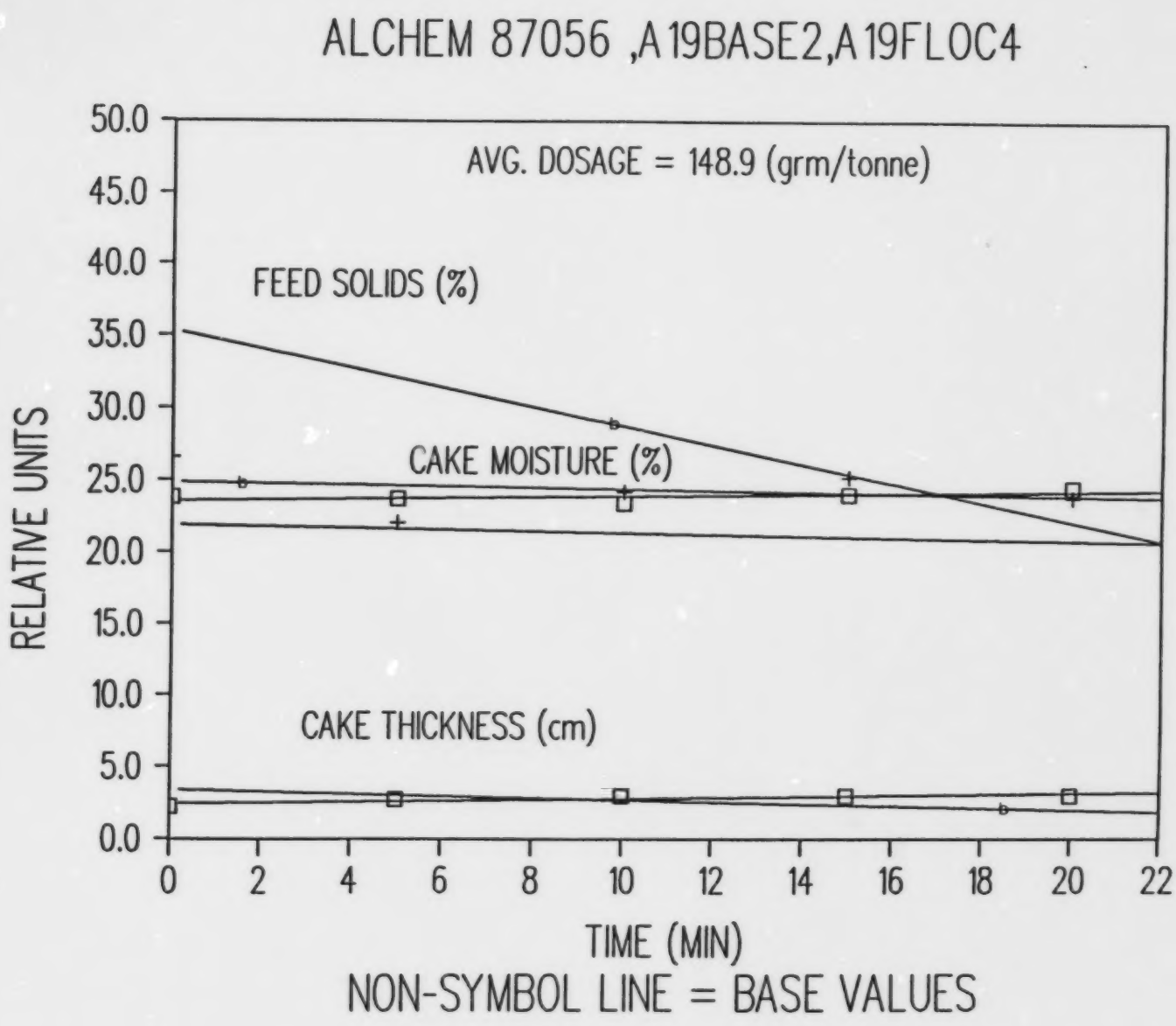

Figure C14 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage 148.9 g/tonne) - Alchem 87056, A19 Base 2, A19 Floc 4

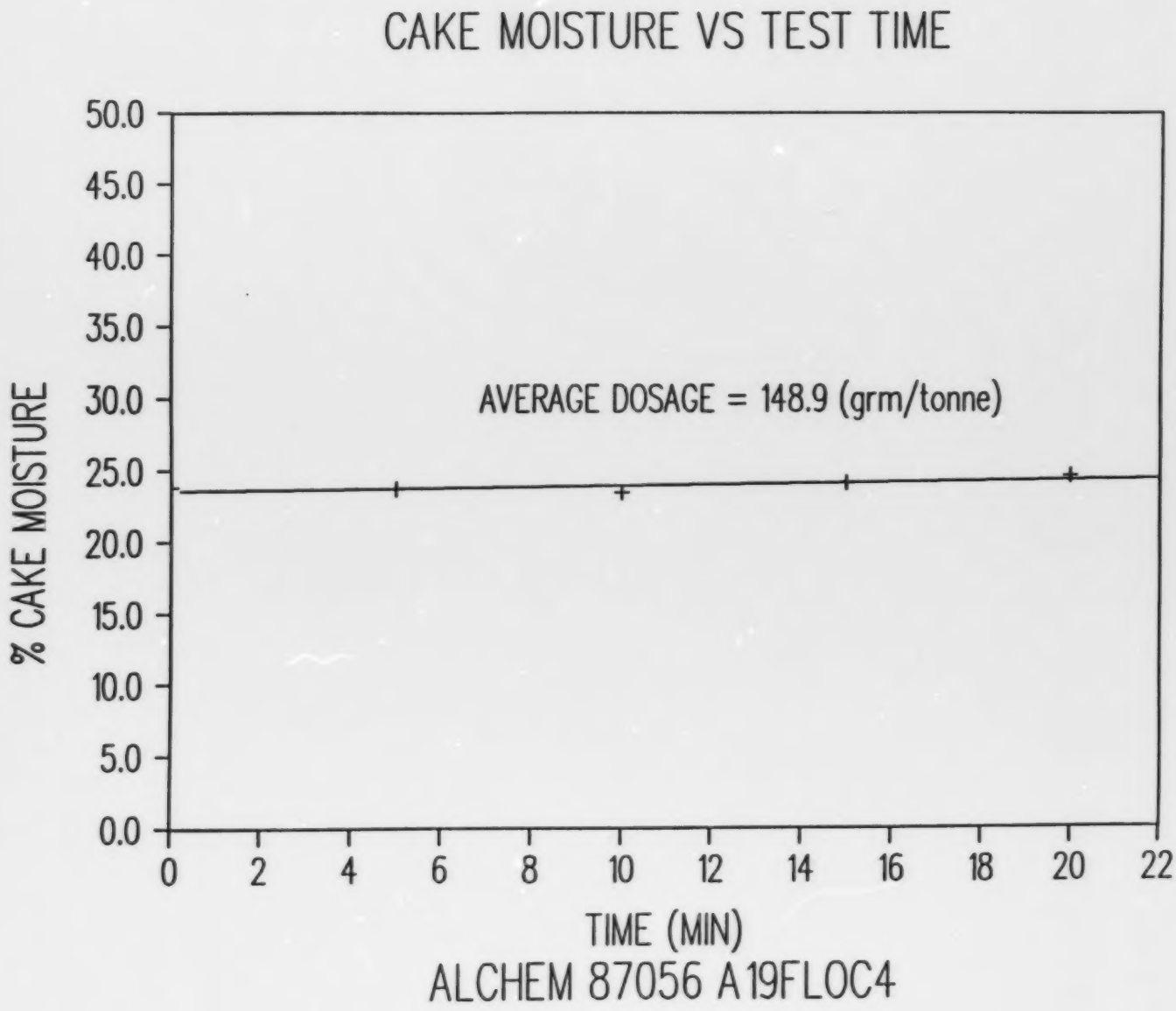

Figure C15 - Cake moisture vs test time at flocculant dosage (148.9 g/tonne) - Alchem 87056, A19 Floc 4

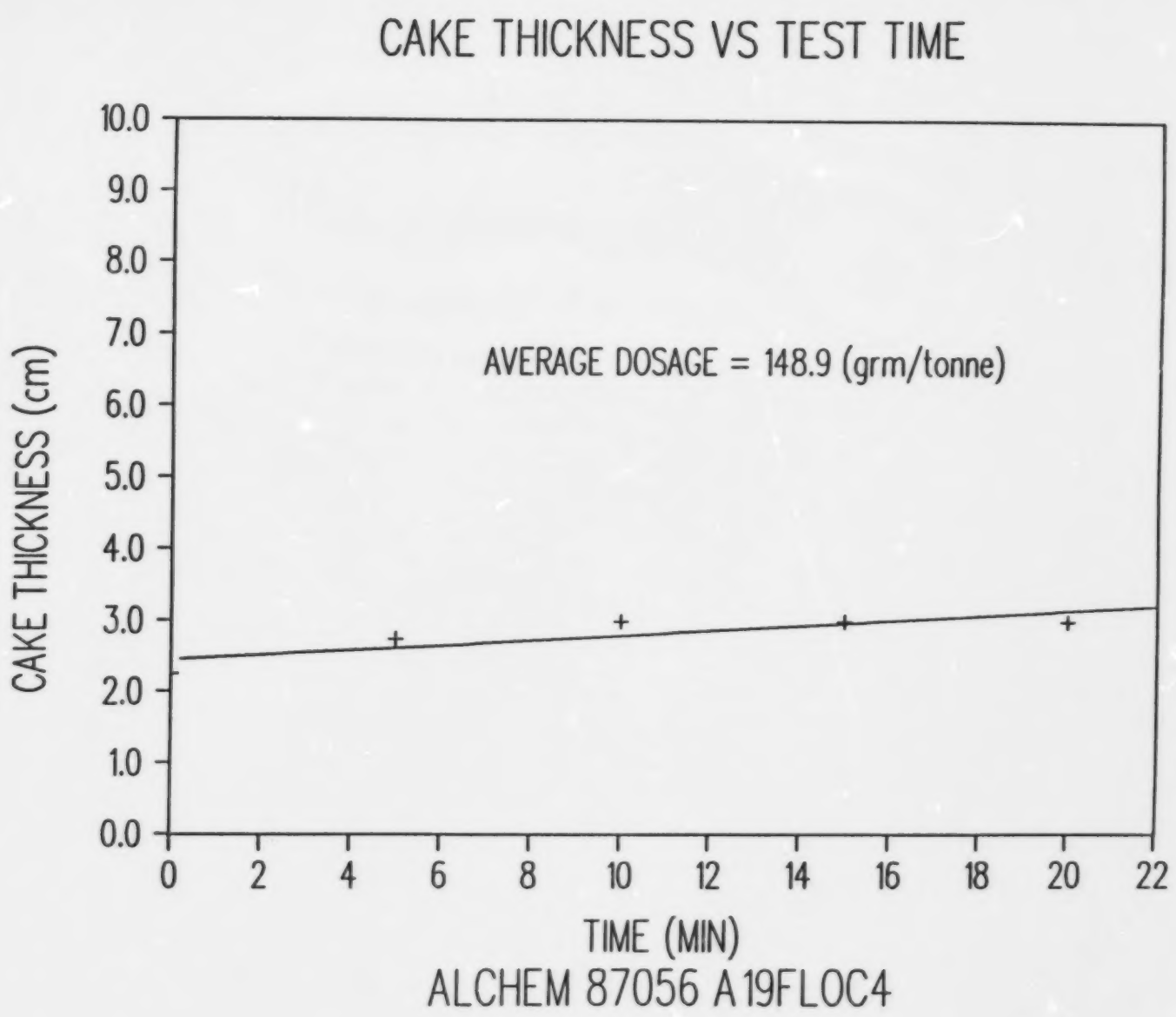

Figure C16 - Cake thickness vs test time at flocculant dosage (148.9 g/tonne) - Alchem 87056, A19 Floc 4

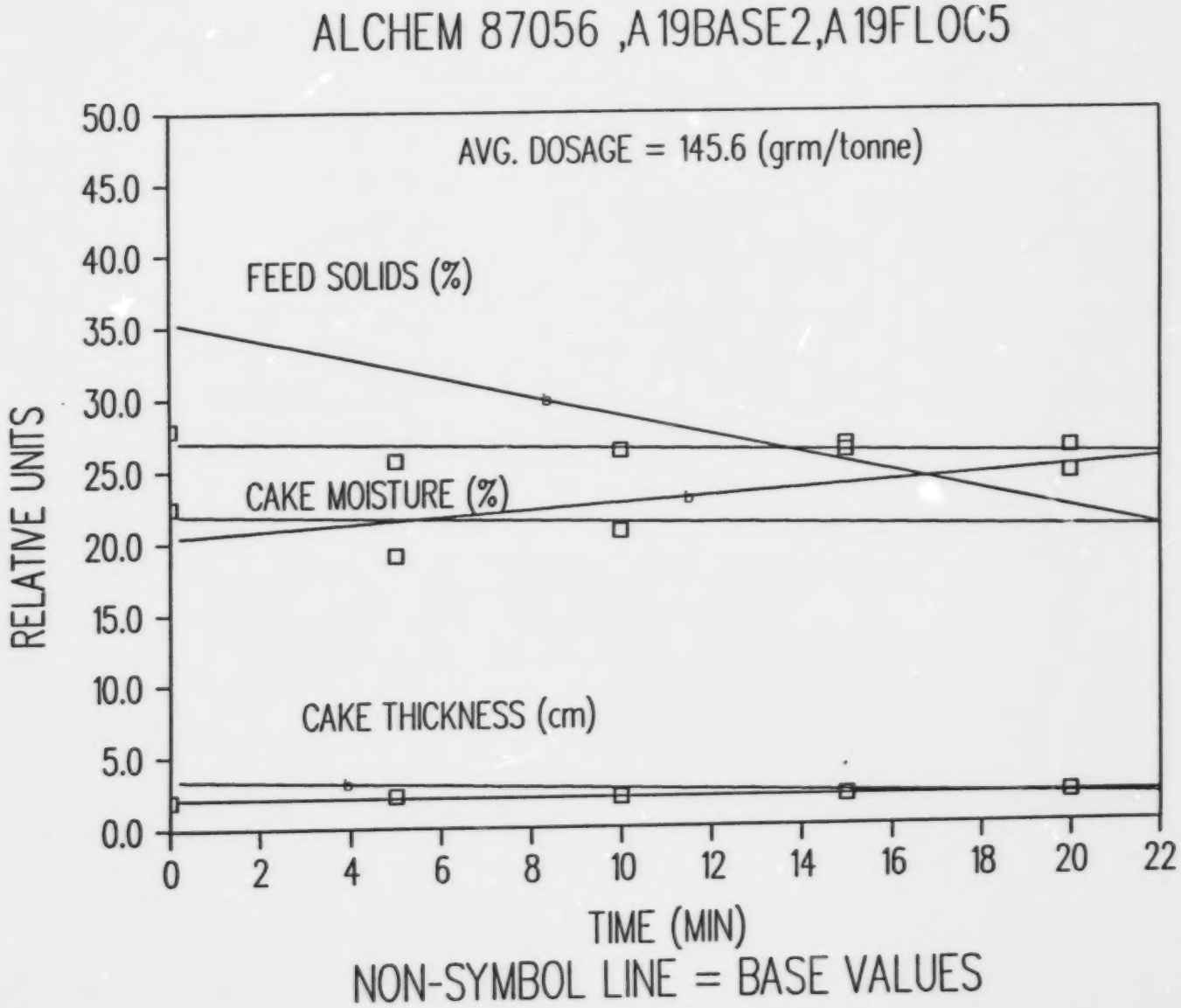

Figure C17 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (145.6 g/tonne) - Alchem 87056, A19 Base 2, A19 Floc 5

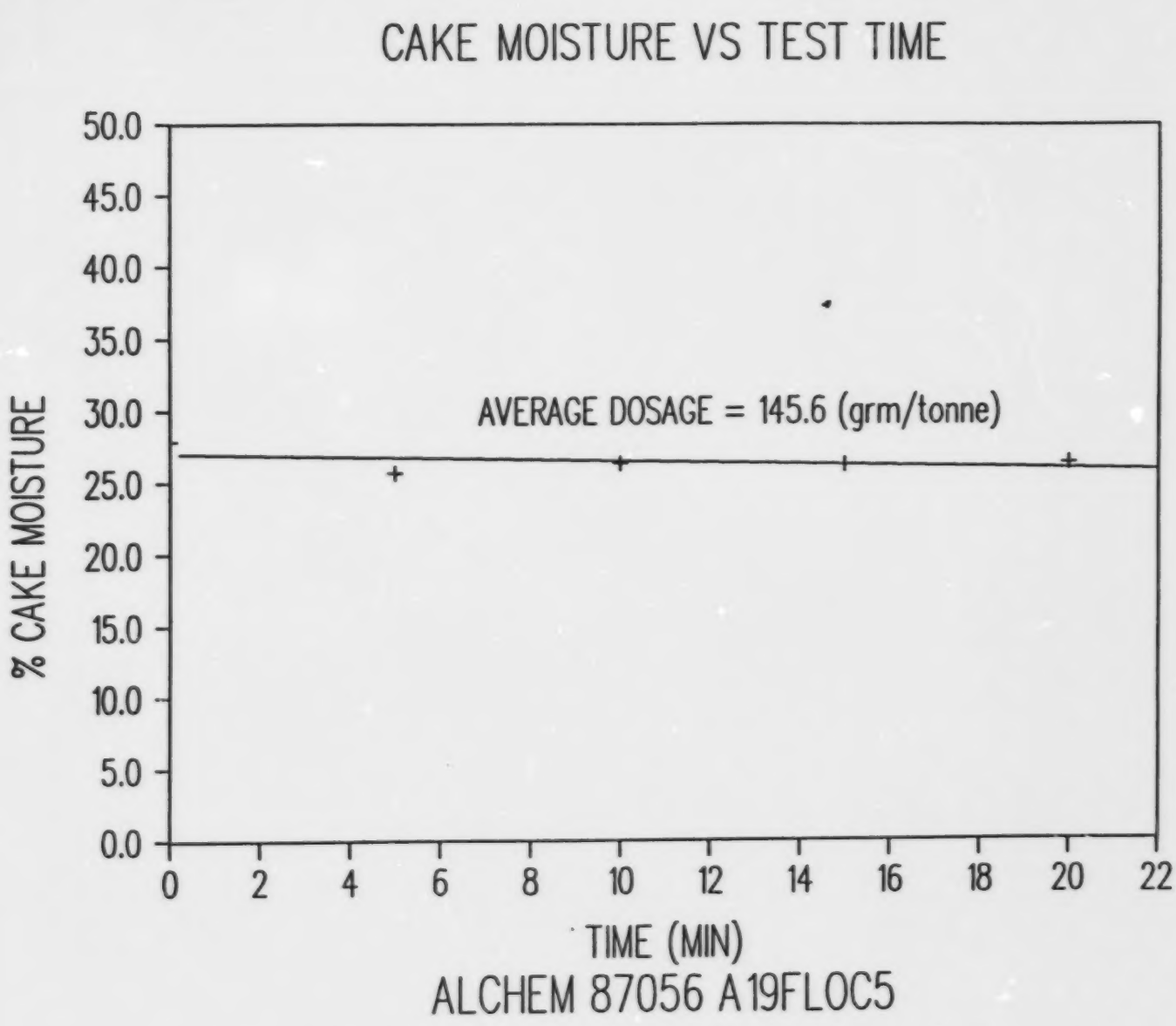

Figure C18 - Cake moisture vs test time at flocculant dosage (145.6 g/tonne) - Alchem 87056, A19 Floc 5

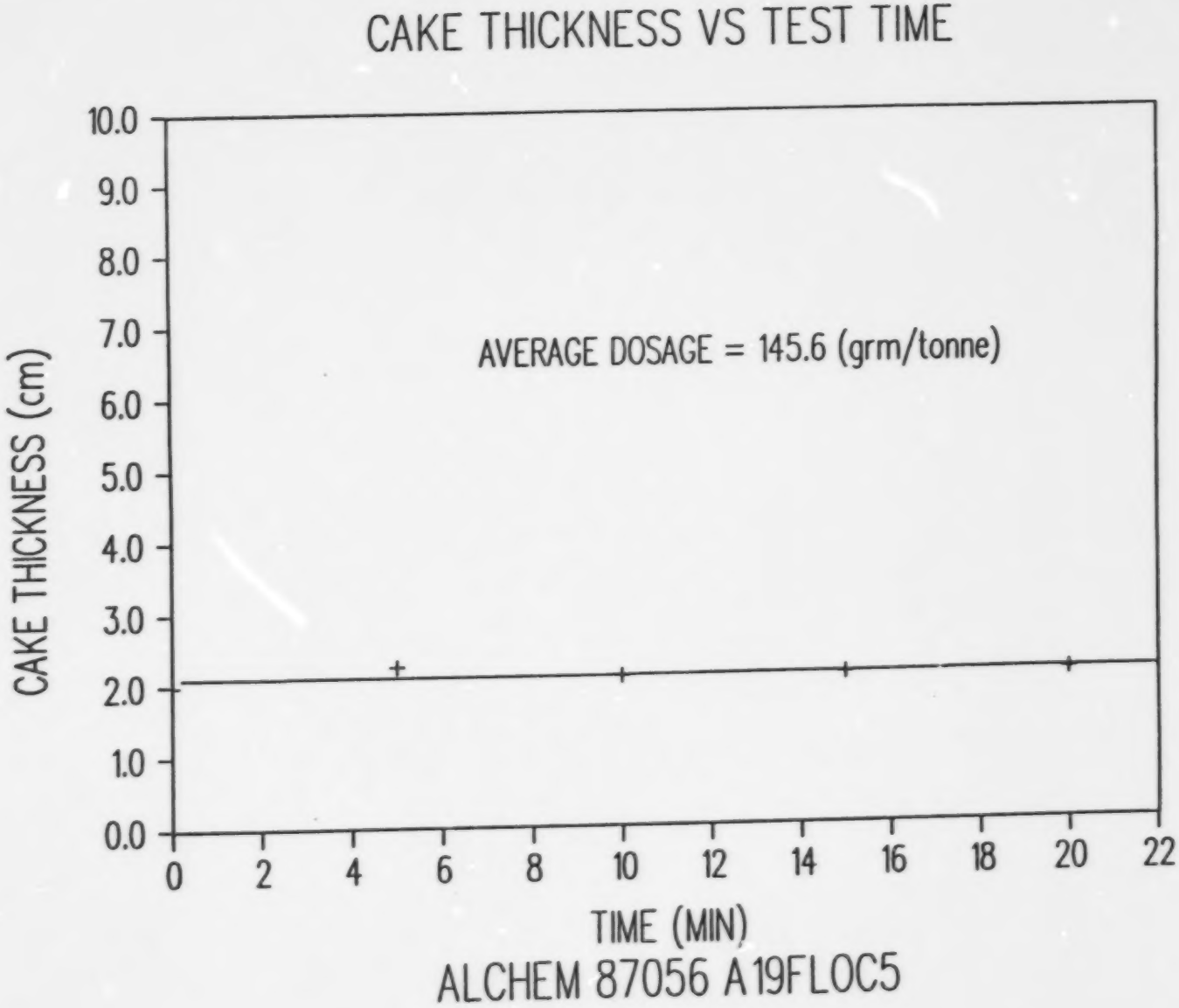

Figure C19 - Cake thickness vs test time at flocculant dosage (145.6 g/tonne) - Alchem 87056, A19 Floc 5

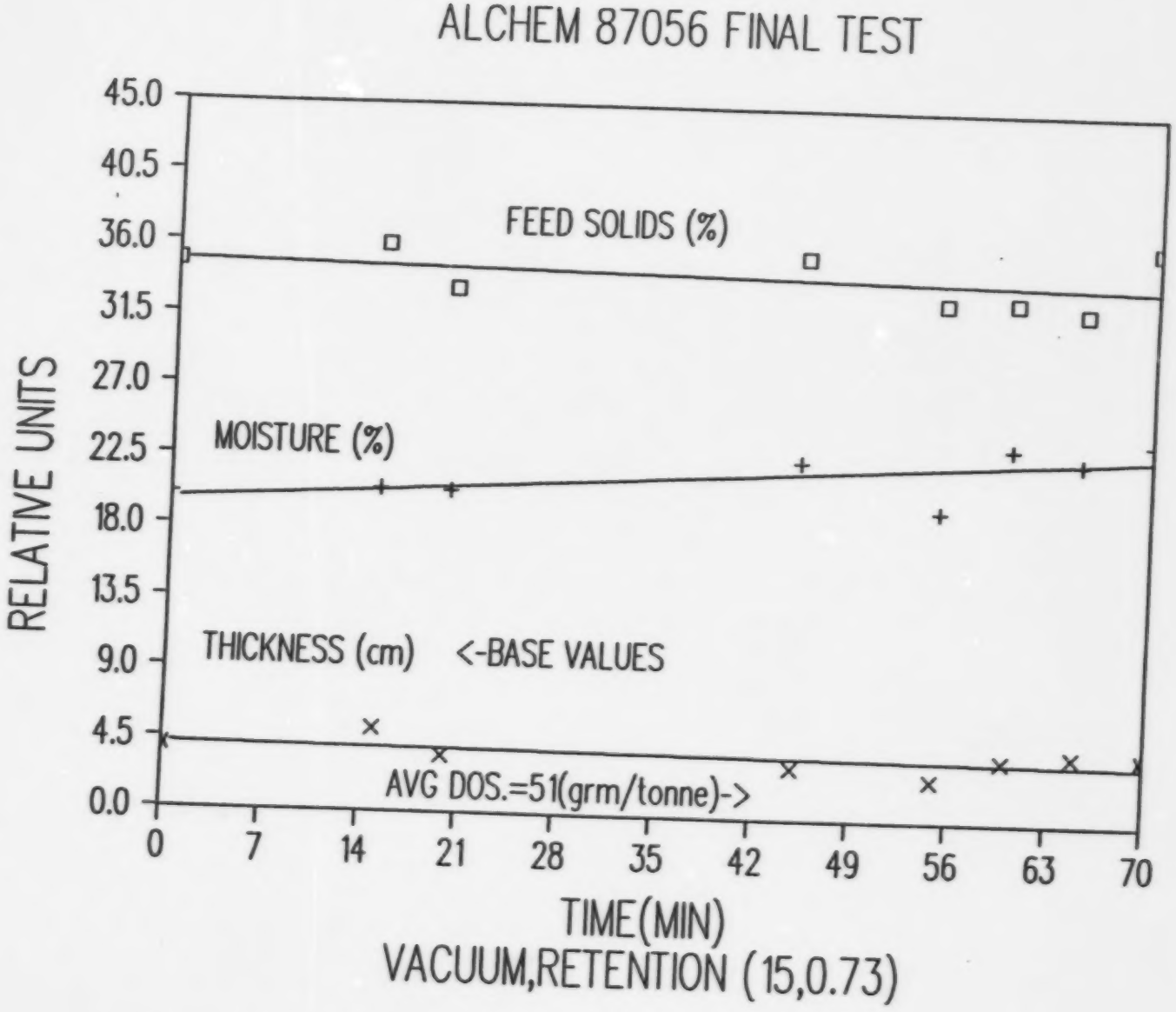

Figure C20 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (51.0 g/tonne) - Alchem 87056, A23 Base, A23 Floc 1

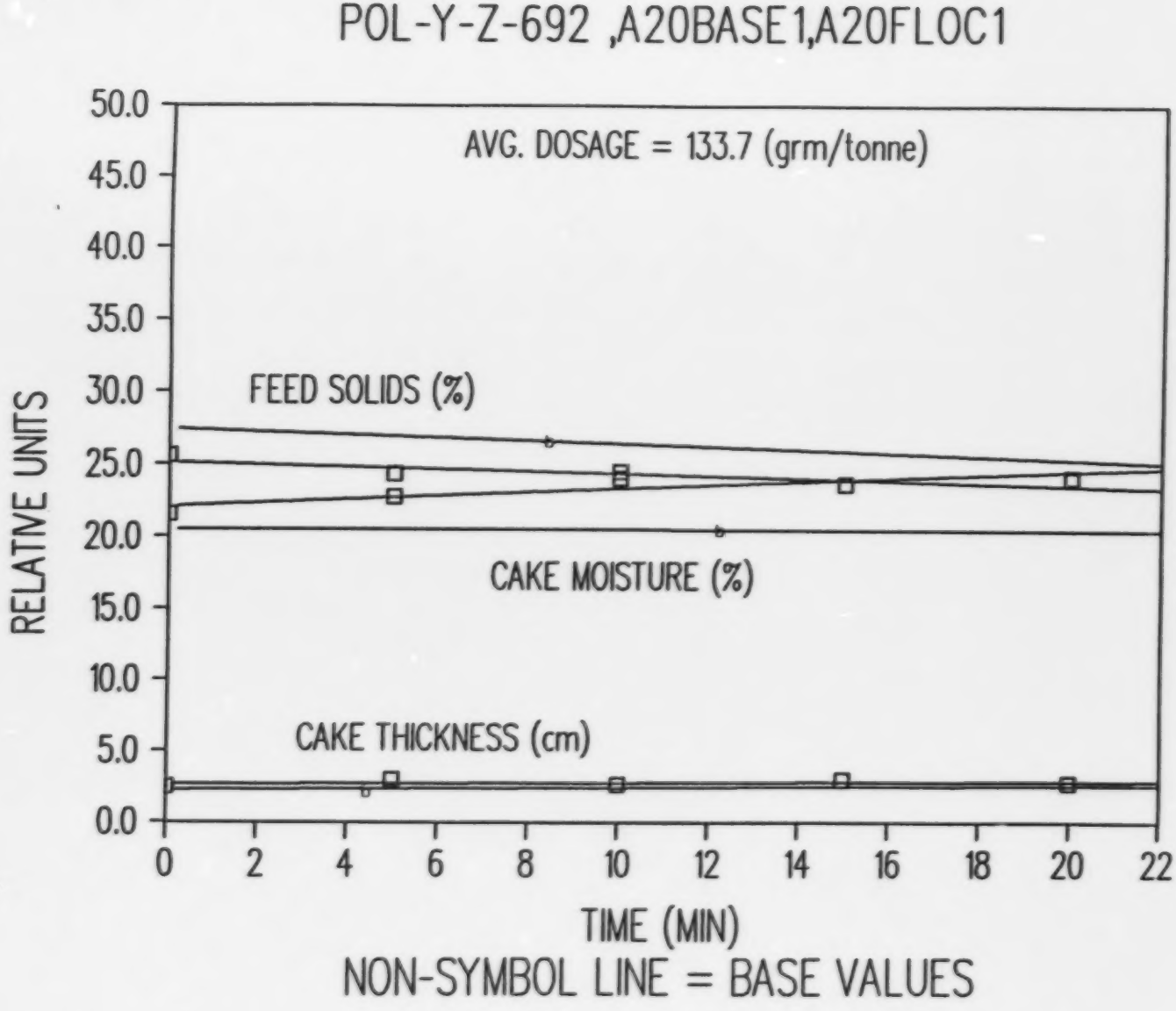

Figure C21 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (133.7 g/tonne) - Pol-Y-Z-692, A20 Base 1, A20 Floc 1

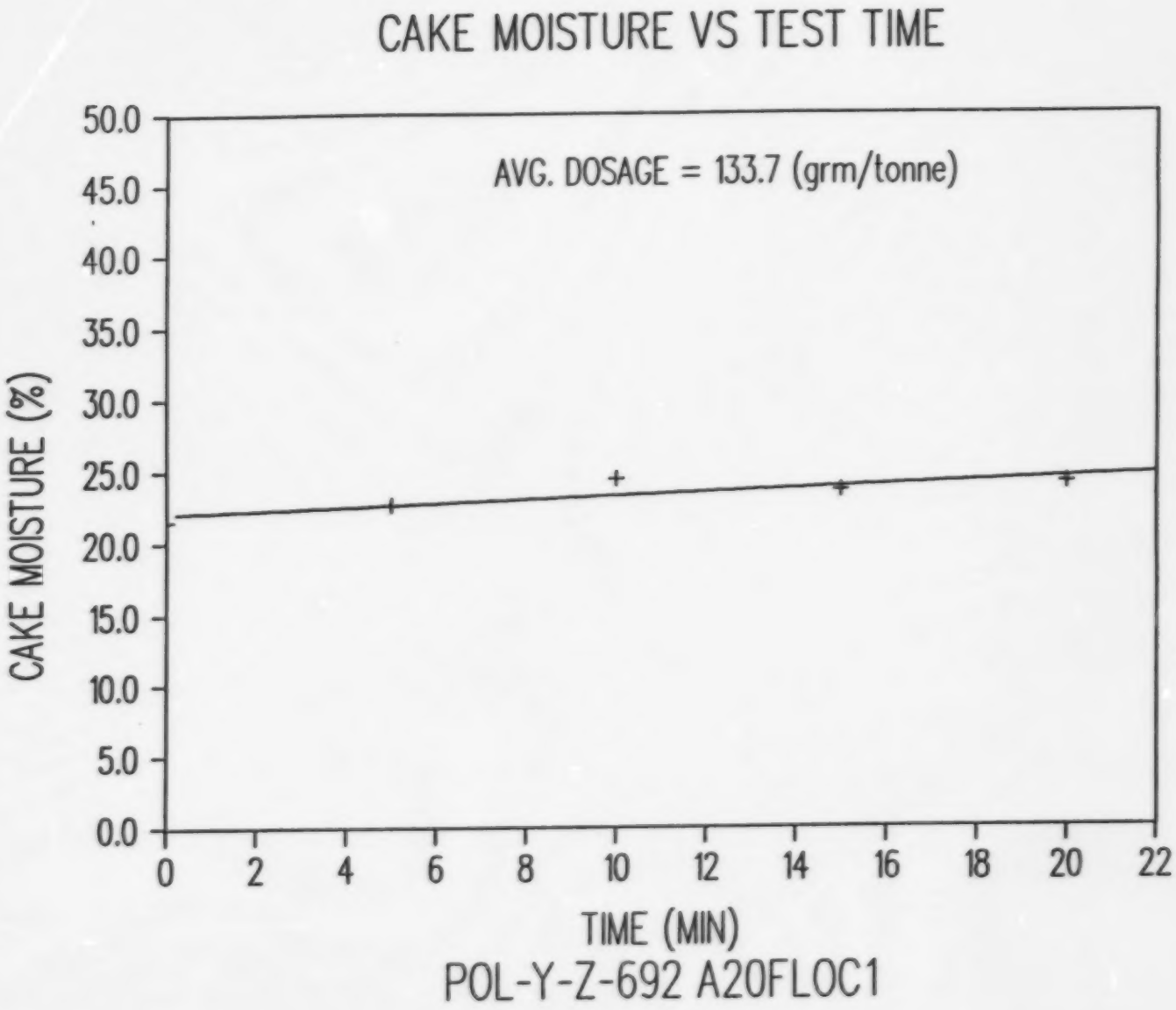

Figure C22 - Cake moisture vs test time at flocculant dosage (133.7 g/tonne) - Pol-Y-Z-692, A20 Floc 1

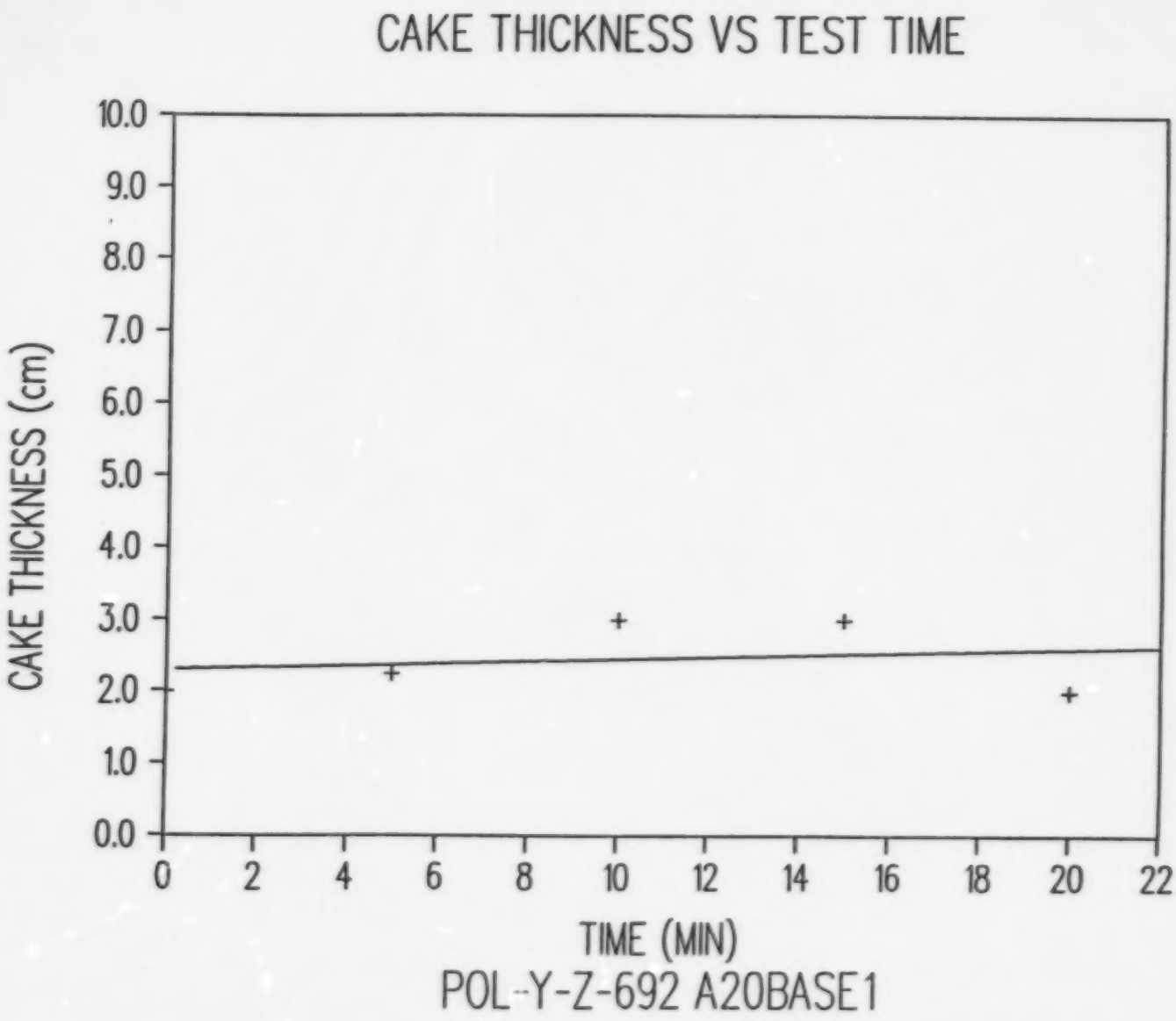

Figure C23 - Cake thickness vs test time at flocculant dosage (0 g/tonne) - Pol-Y-Z-692, A20 Floc 1

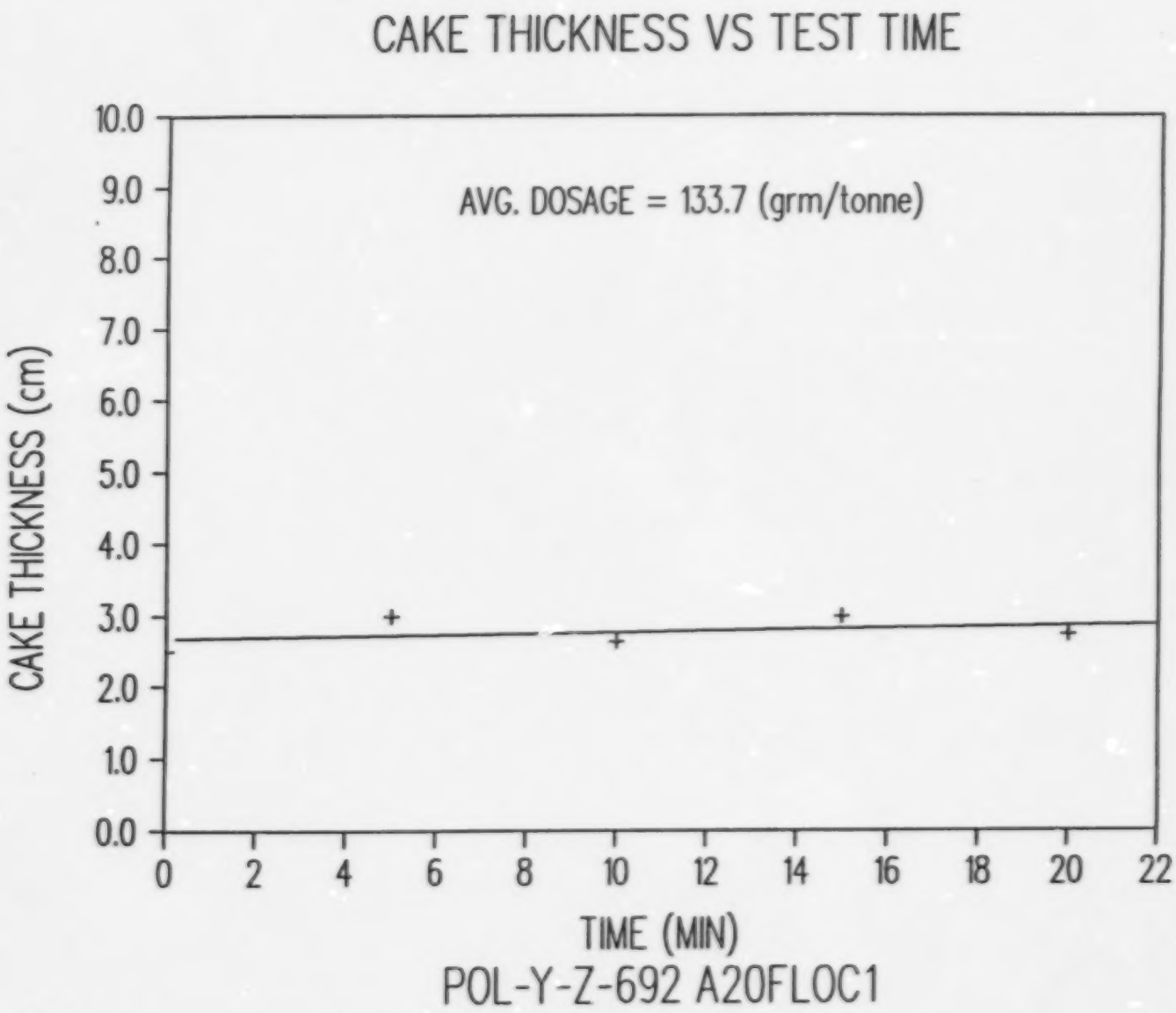

Figure C24 - Cake thickness vs test time at flocculant dosage (133.7 g/tonne) - Pol-Y-Z-692, A20 Floc 1

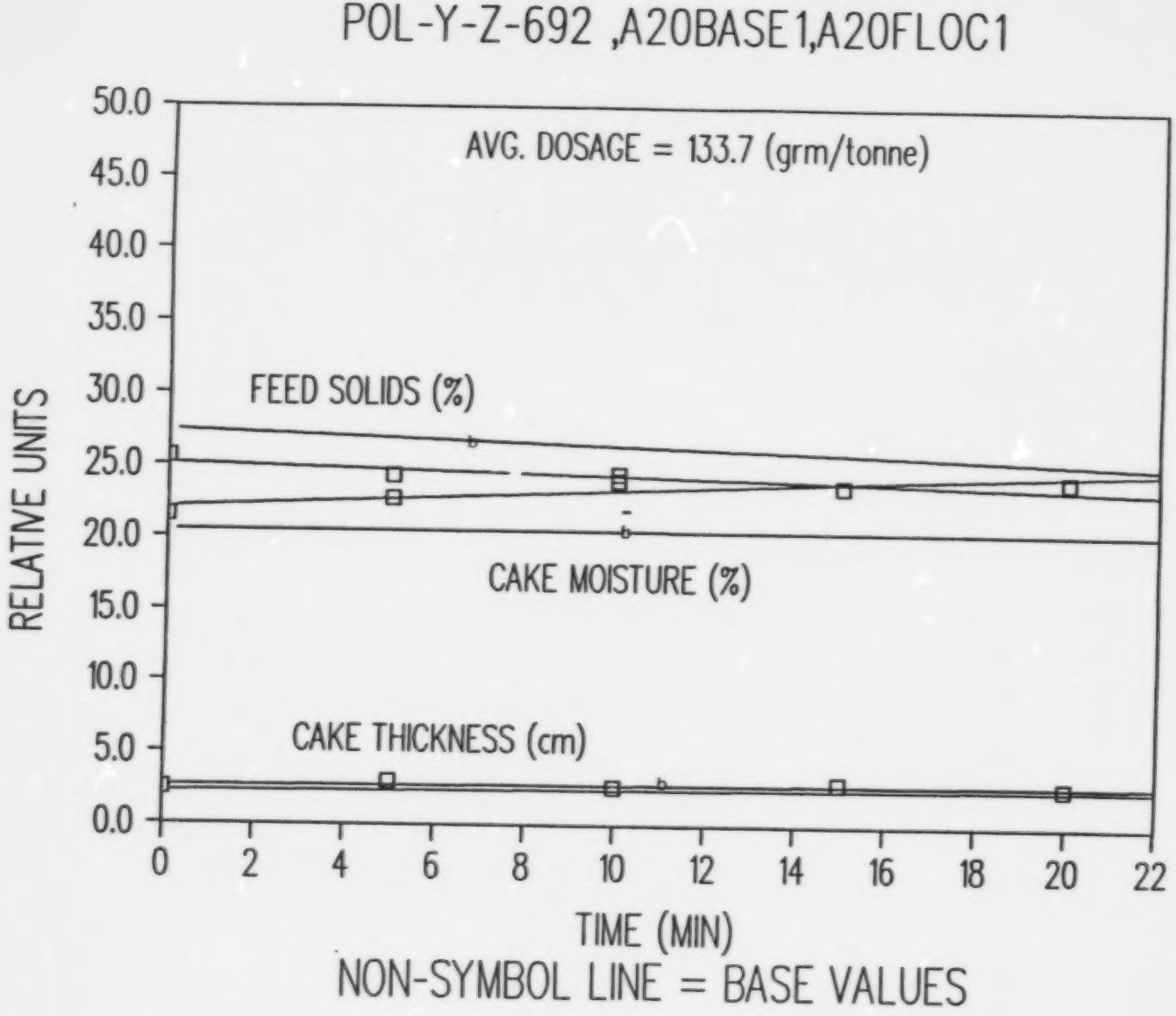

Figure C25 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (133.7 g/tonne) - Pol-Y-Z-692, A20 Base 1, A20 Floc 1

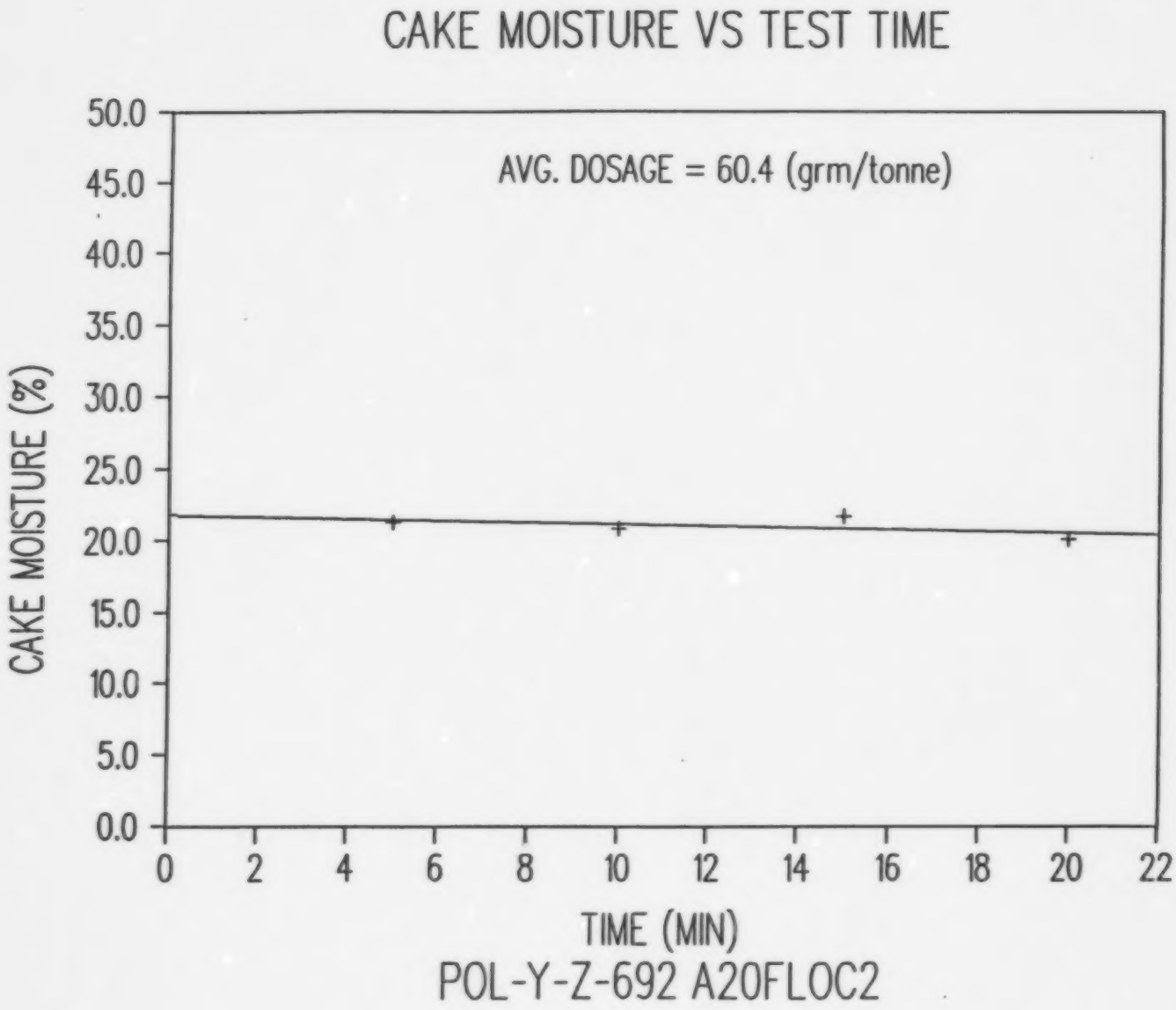

Figure C26 - Cake moisture vs test time at flocculant dosage (60.4 g/tonne) - Pol-Y-Z-692, A20 Floc 2

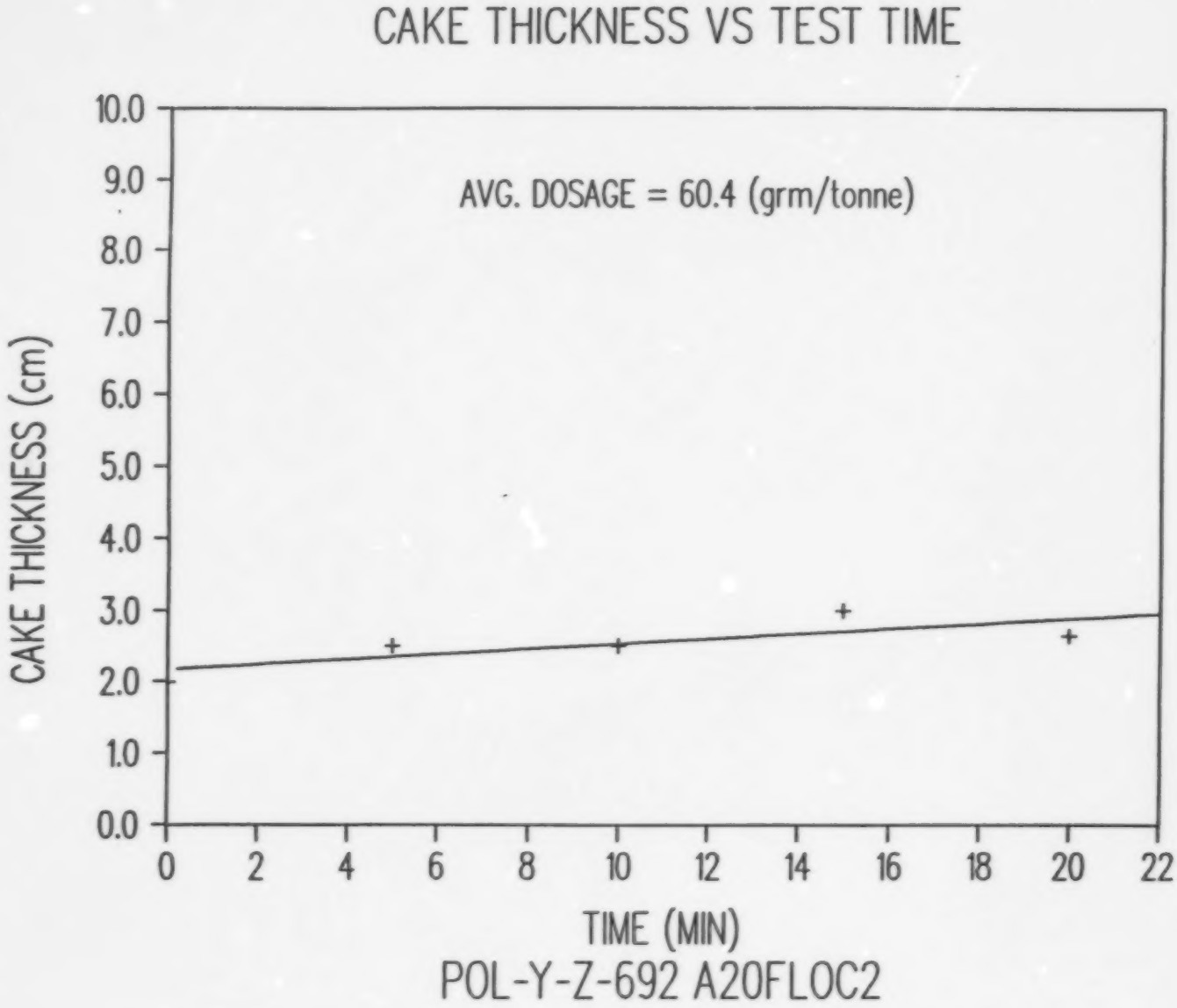

Figure C27 - Cake thickness vs test time at flocculant dosage (60.4 g/tonne) - Pol-Y-Z-692, A20 Floc 2

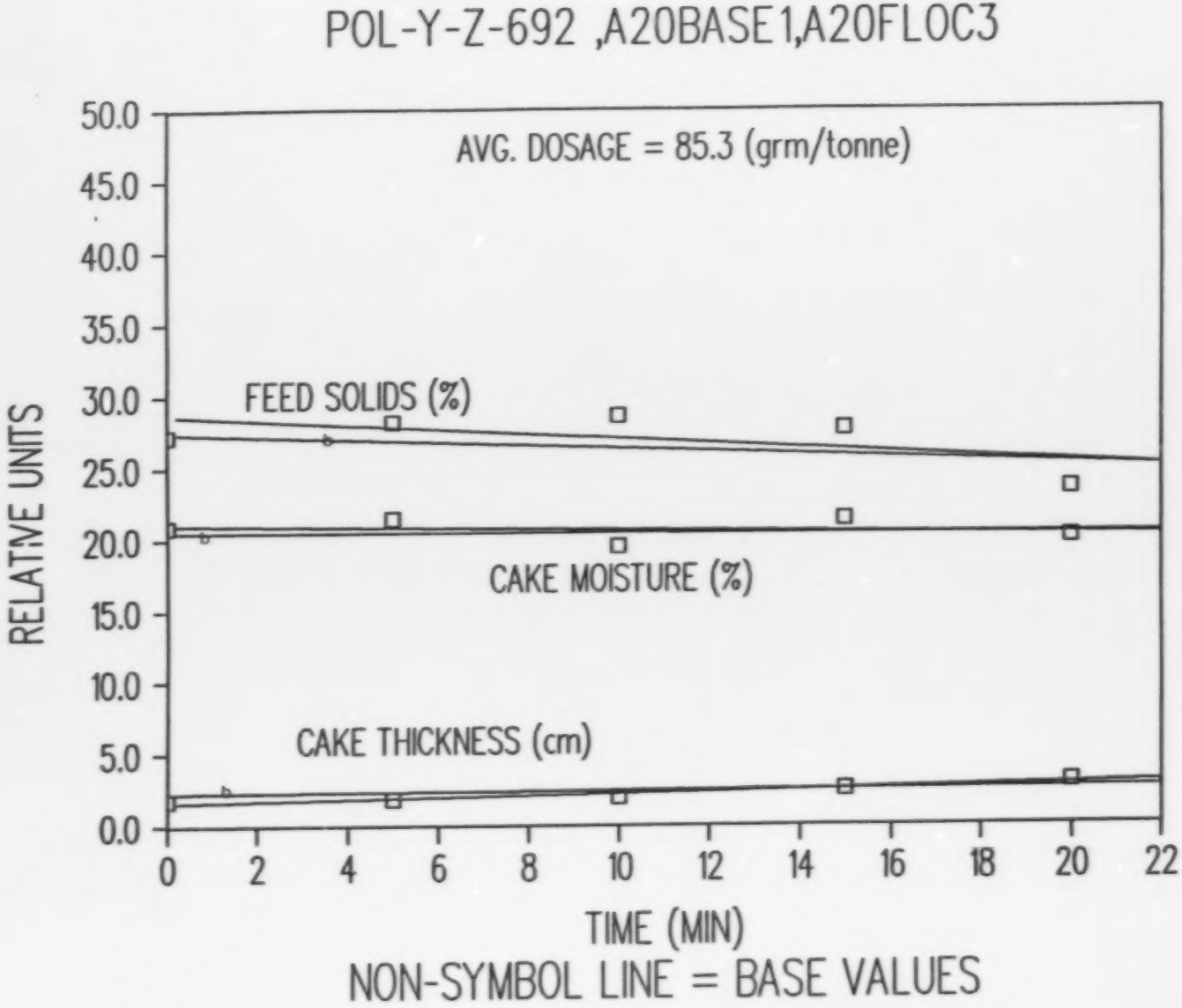

Figure C28 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (85.3 g/tonne) - Pol-Y-Z-692, A20 Base 1, A20 Floc 3

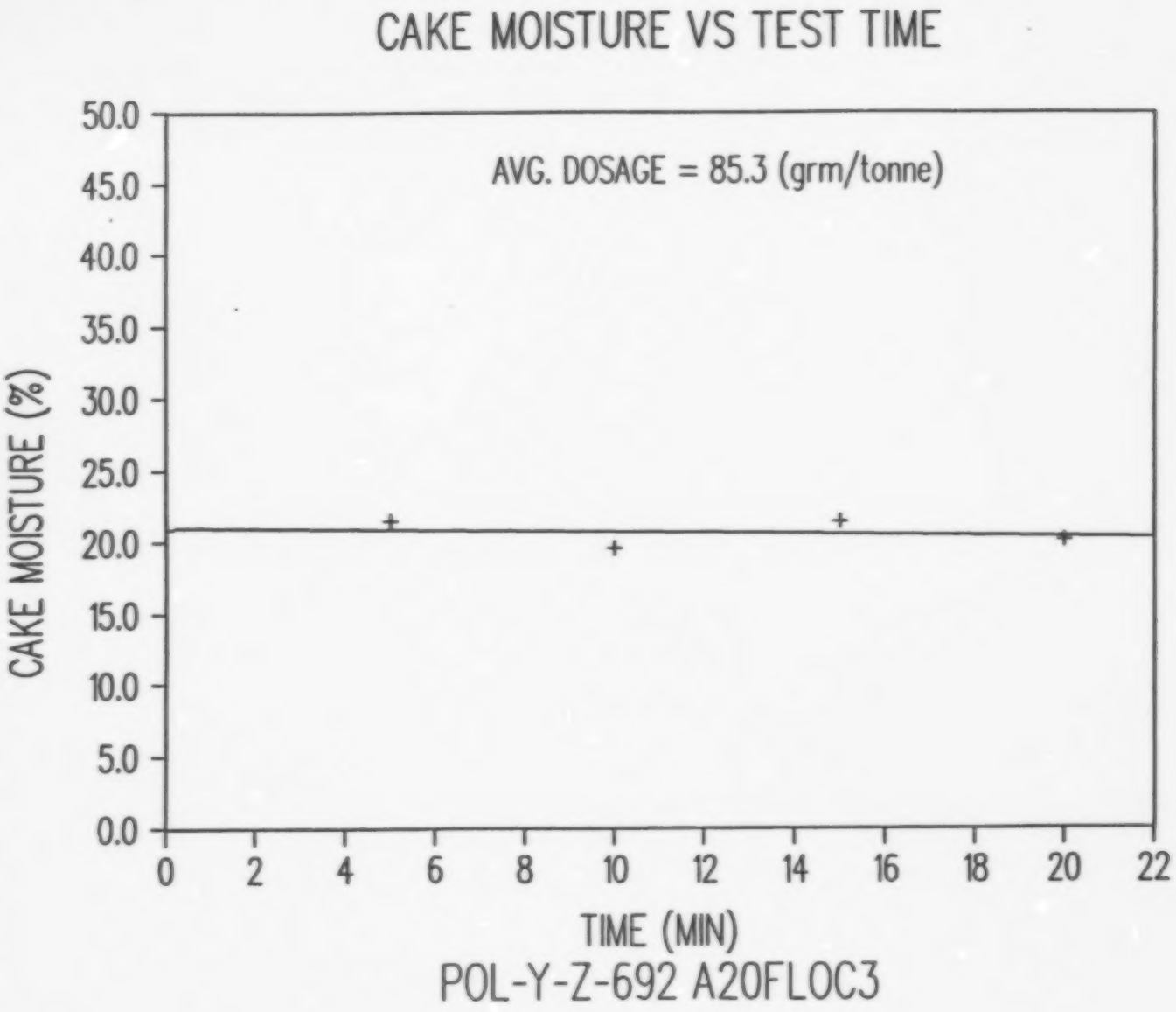

Figure C29 - Cake moisture vs test time at flocculant dosage (85.3 g/tonne) - Pol-Y-Z-692, A20 Base 3

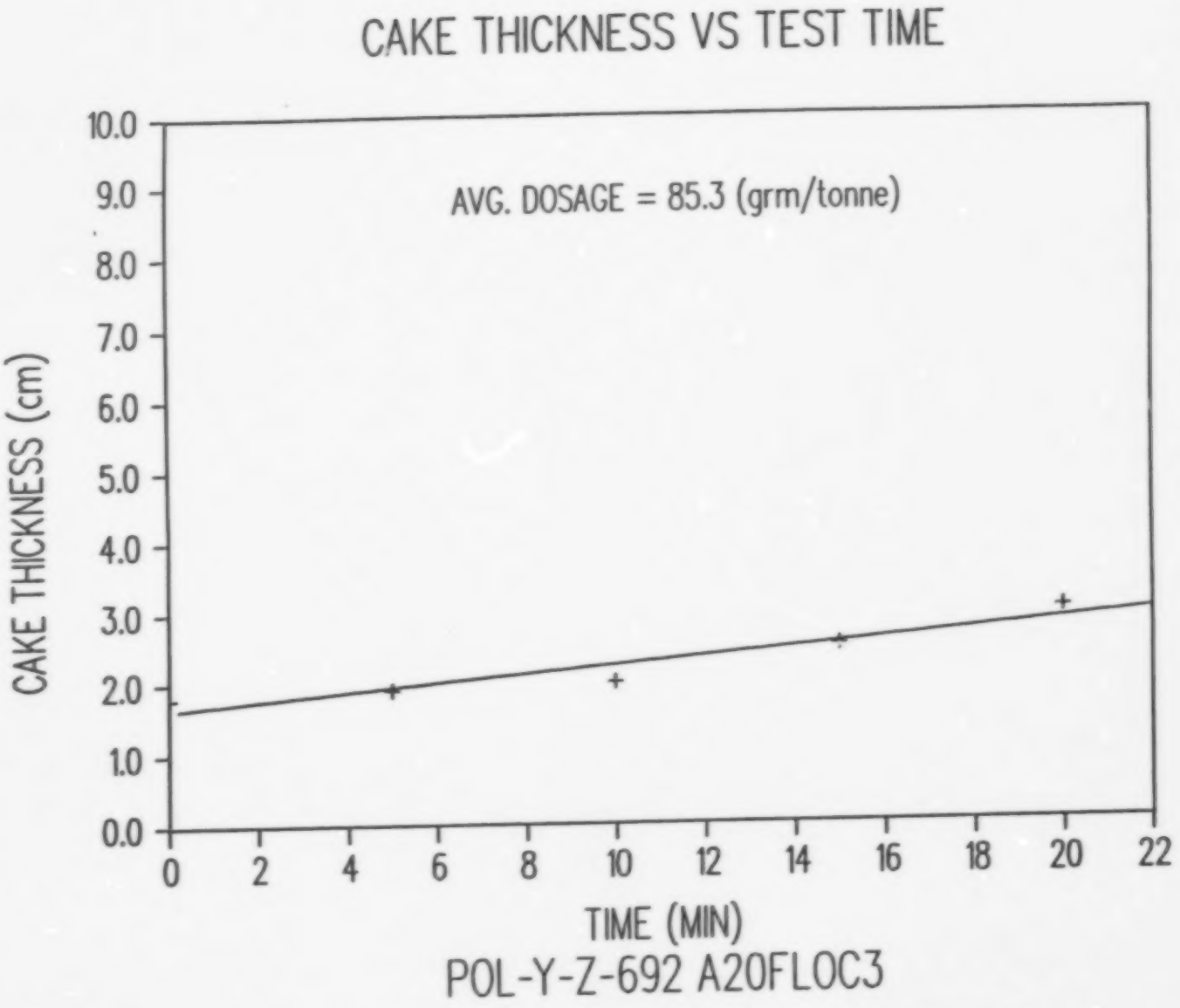

Figure C30 - Cake thickness vs test time at flocculant dosage (85.3 g/tonne) - Pol-Y-Z-692, A20 Floc 3

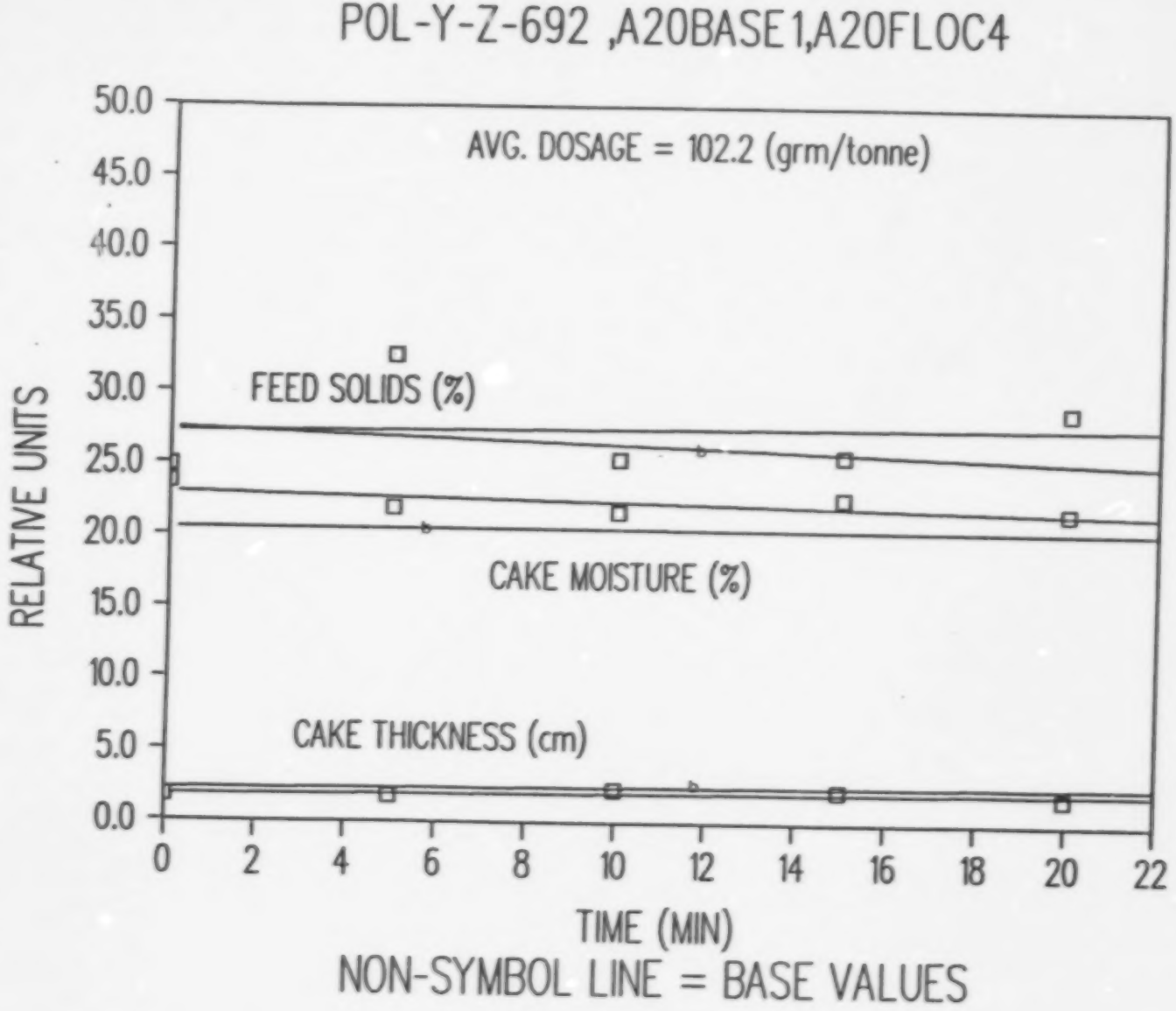

Figure C31 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (102.2 g/tonne) - Pol-Y-Z-692, A20 Base 1, A20 Floc 4

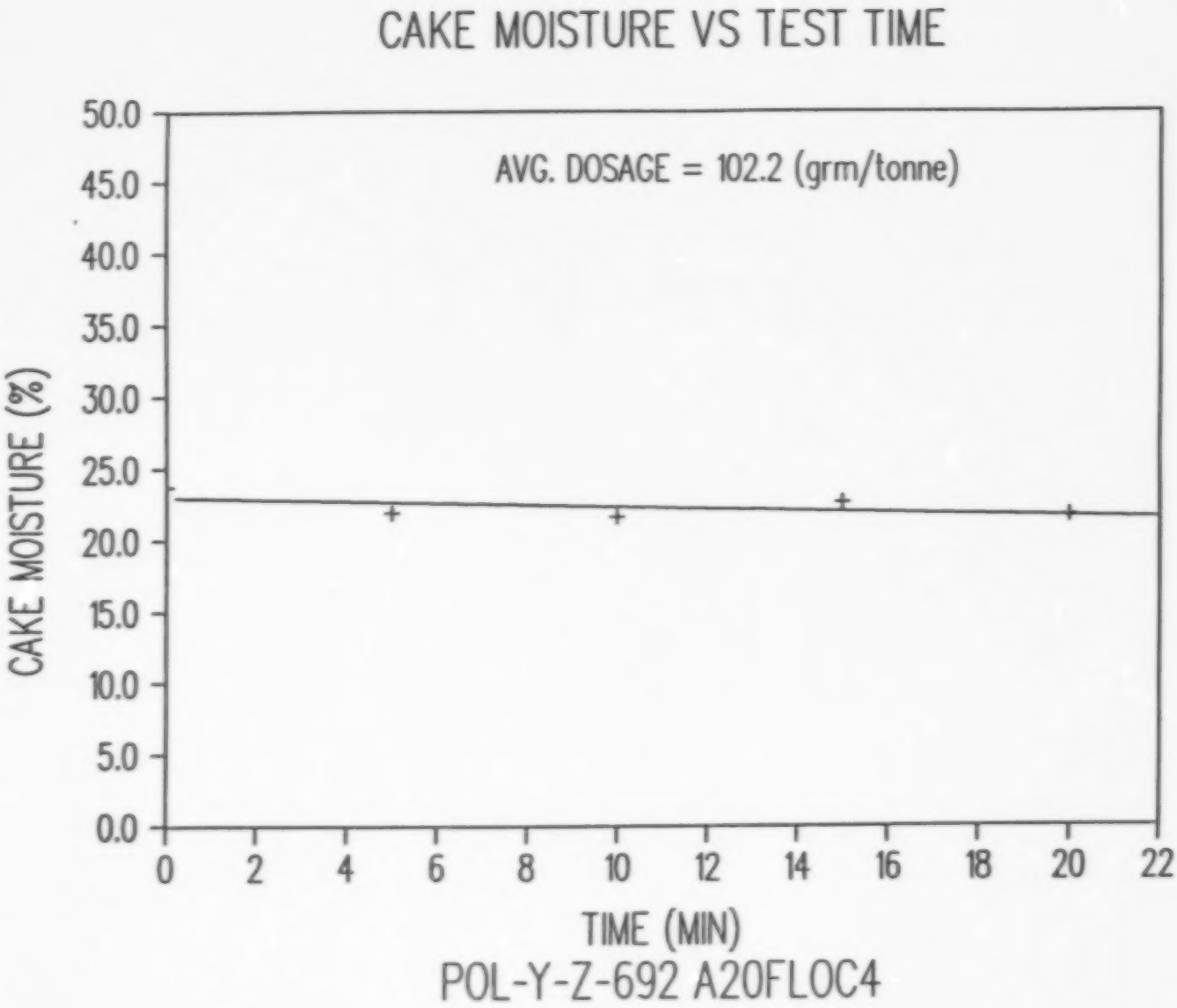

Figure C32 - Cake moisture vs test time at flocculant dosage (102.2 g/tonne) - Pol-Y-Z-692, A20 Floc 4

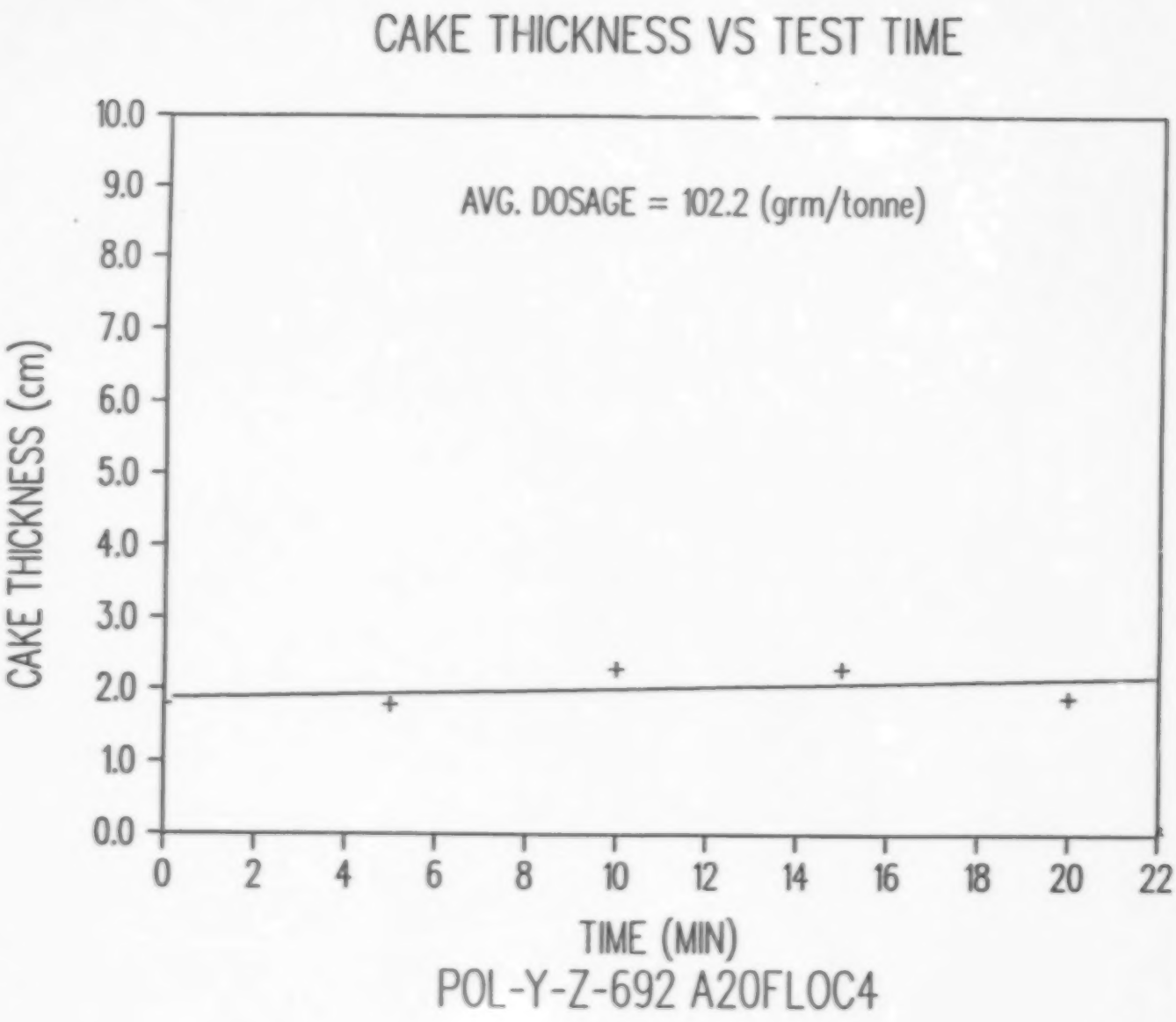

Figure C33 - Cake thickness vs test time at flocculant dosage (102.2 g/tonne) - Pol-Y-Z-692, A20 Floc 4

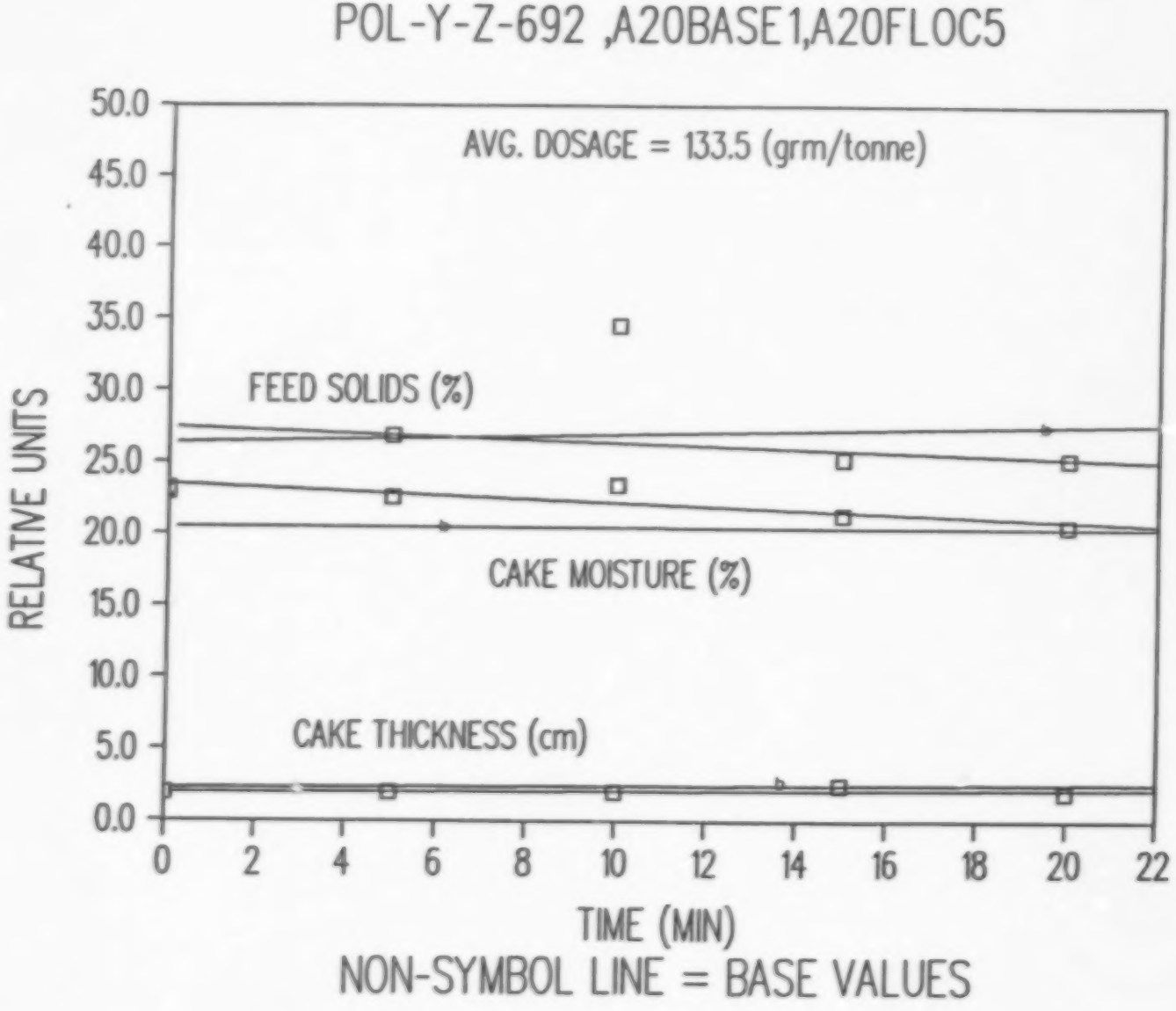

Figure C34 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (133.5 g/tonne) - Pol-Y-Z-692, A20 Base 1, A20 Floc 5

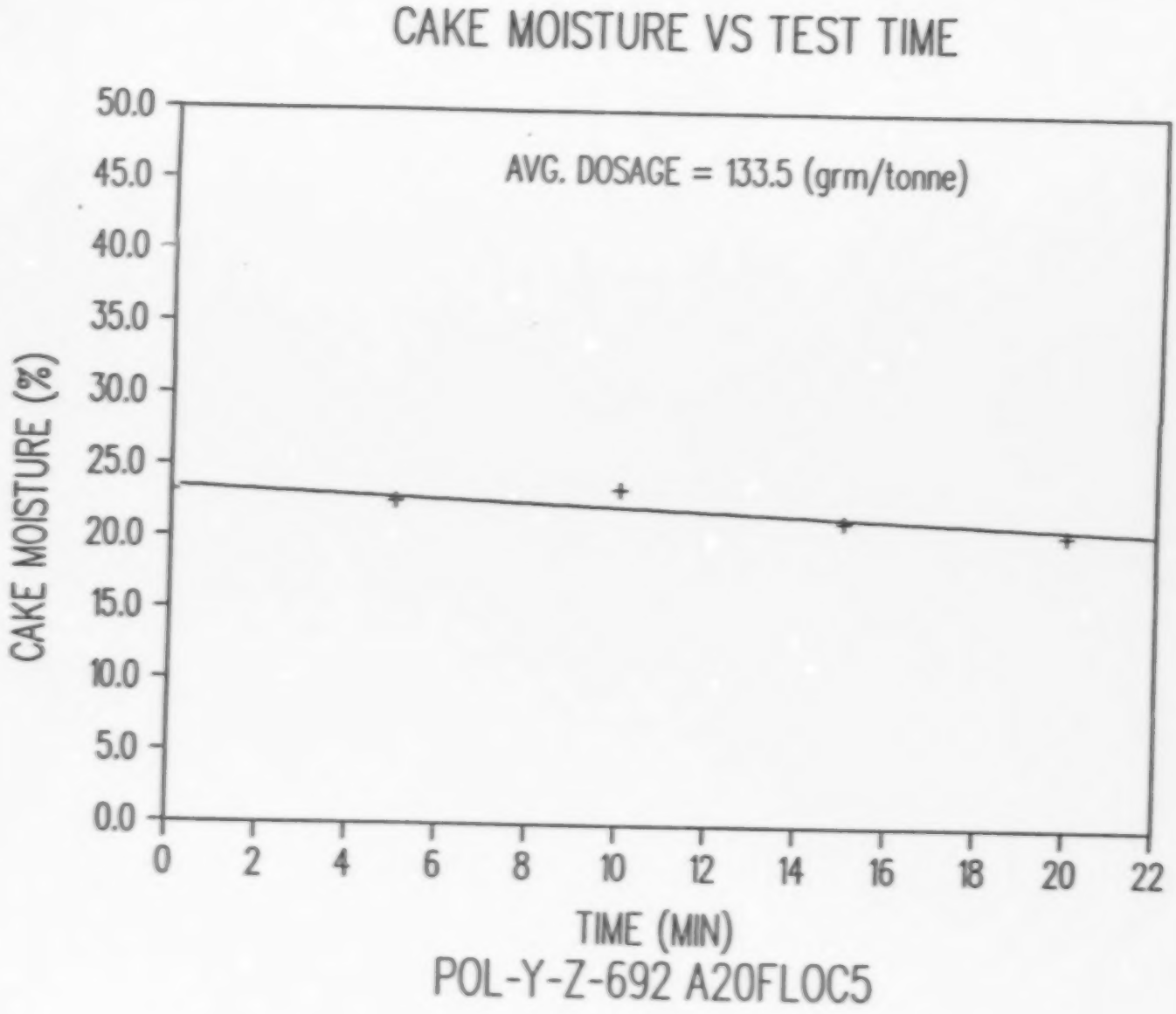

Figure C35 - Cake moisture vs test time at flocculant dosage (133.5 g/tonne) - Pol-Y-Z-692, A20 Floc 5

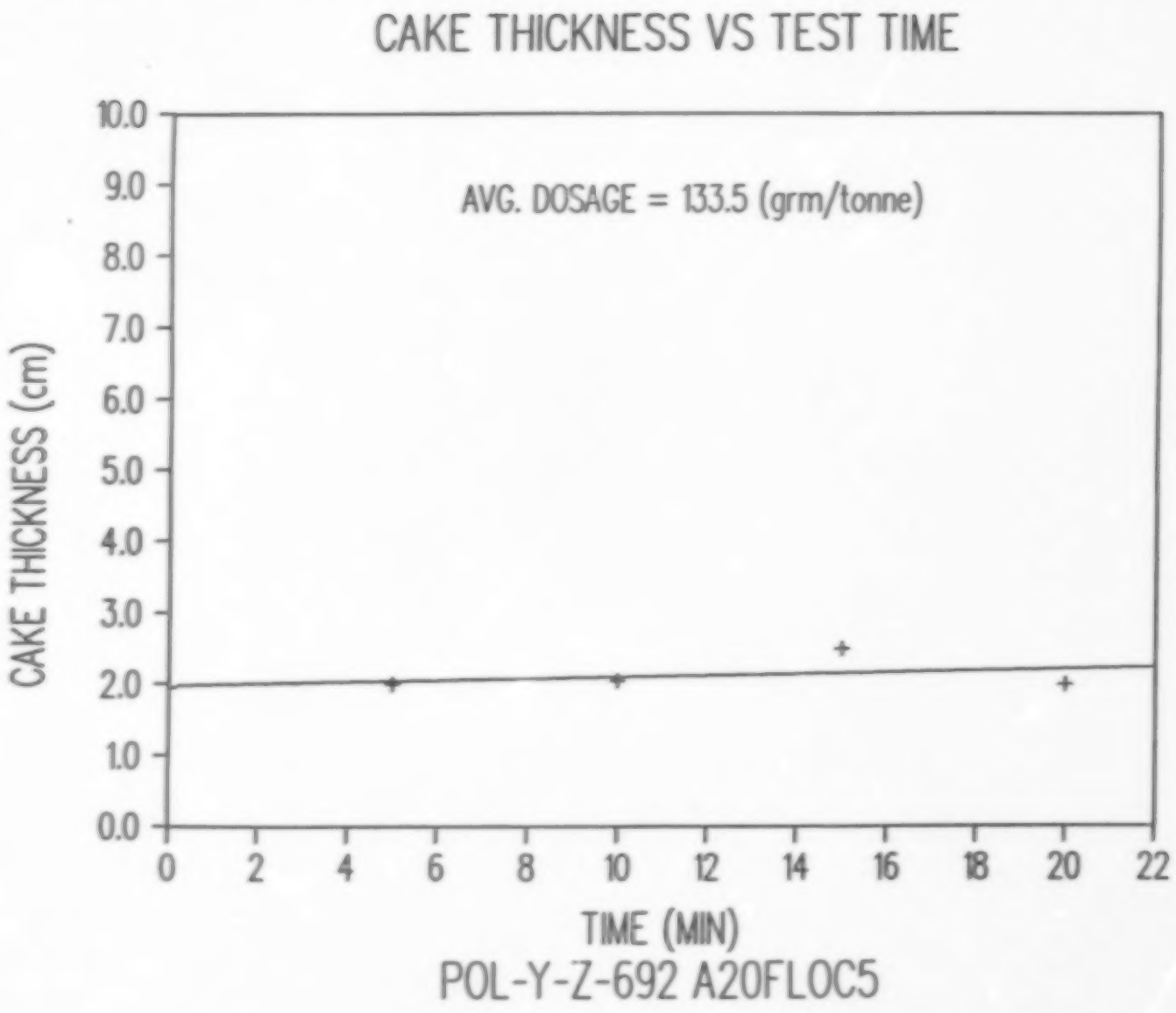

Figure C36 - Cake thickness vs test time at flocculant dosage (133.5 g/tonne) - Pol-Y-Z-692, A20 Floc 5

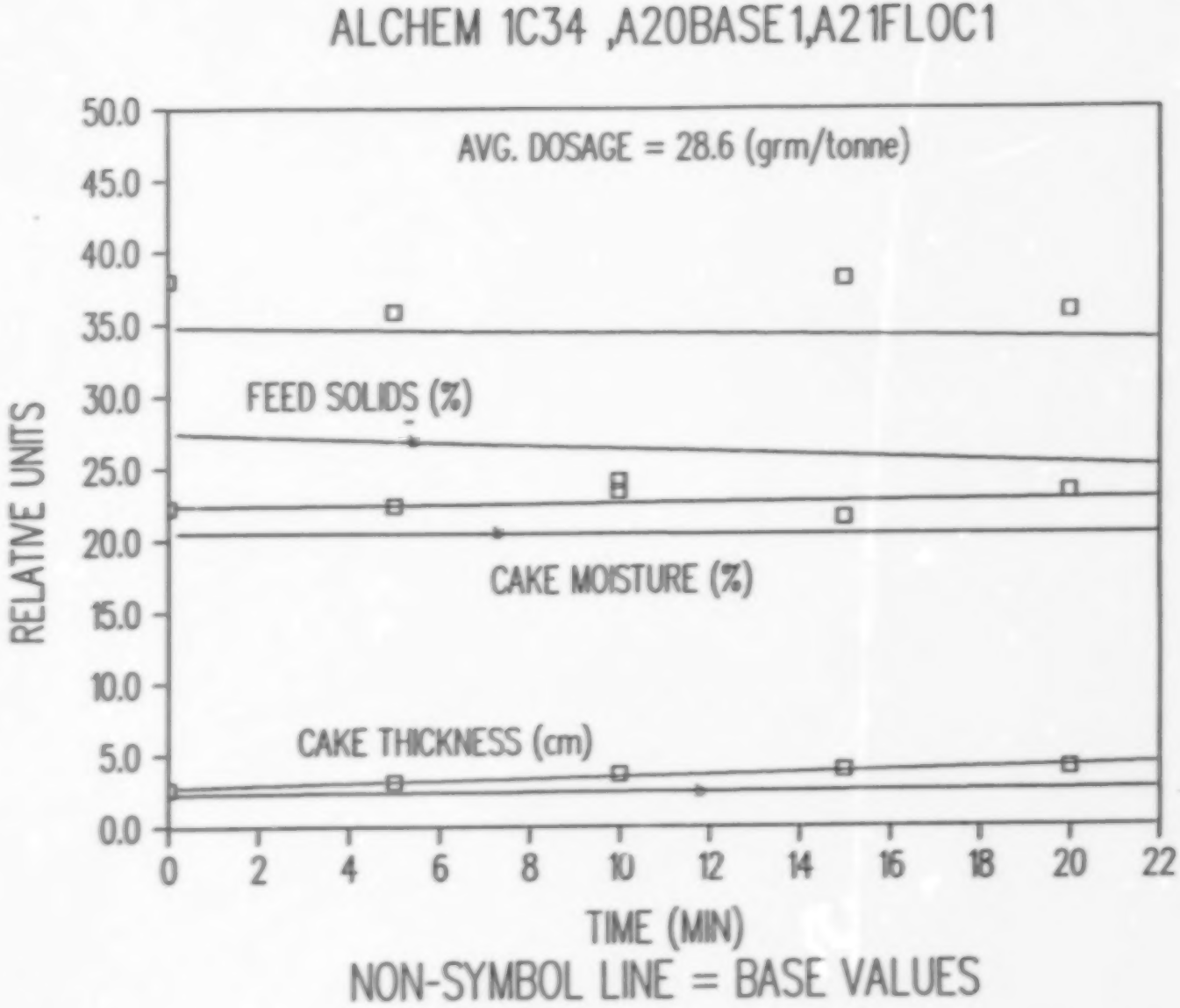

Figure C37 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (28.6 g/tonne) - Alchem 1C34, A20 Base 1, A21 Floc 1

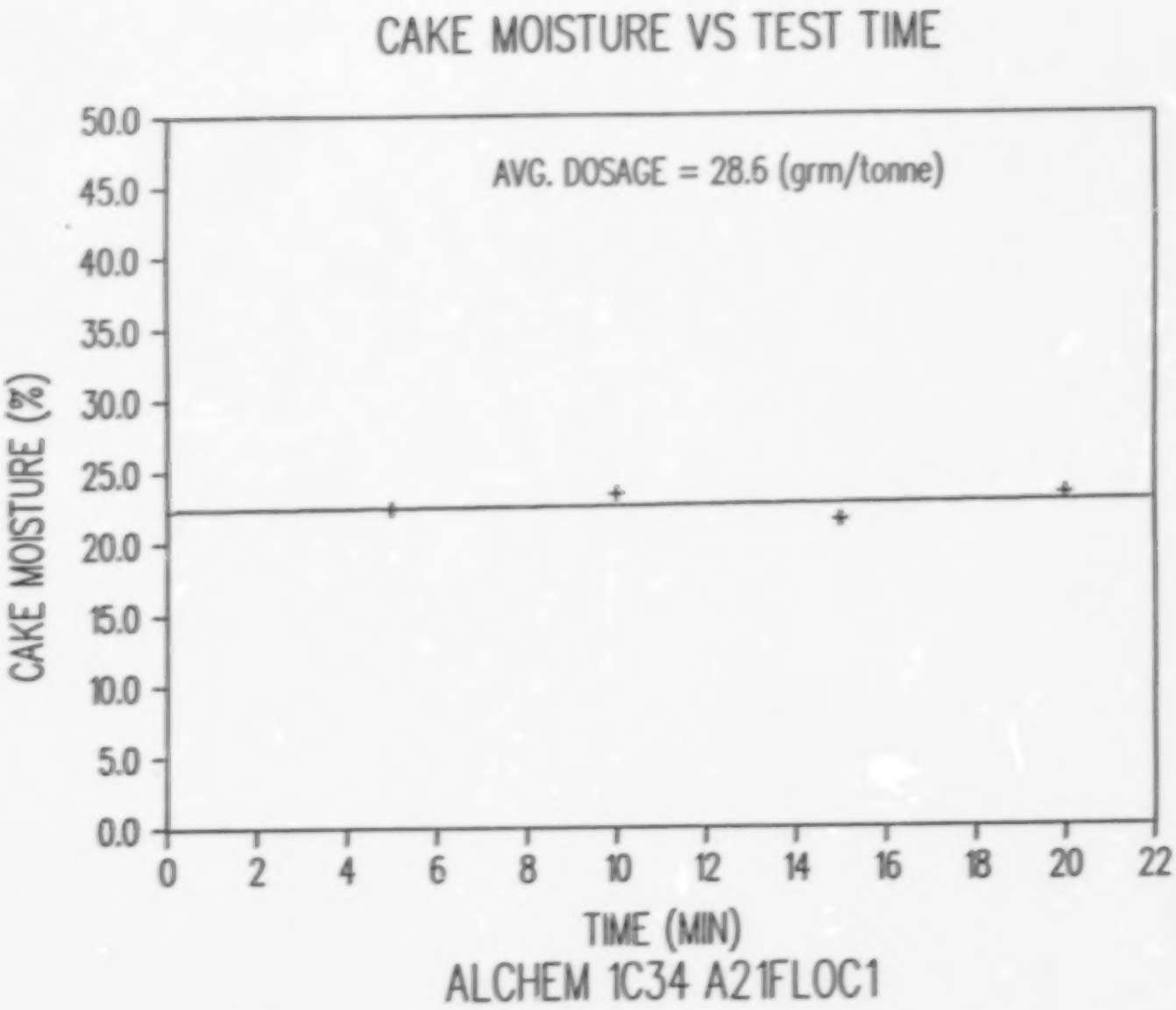

Figure C38 - Cake moisture vs test time at flocculant dosage (28.6 g/tonne) - Alchem 1C34, A21 Floc 1

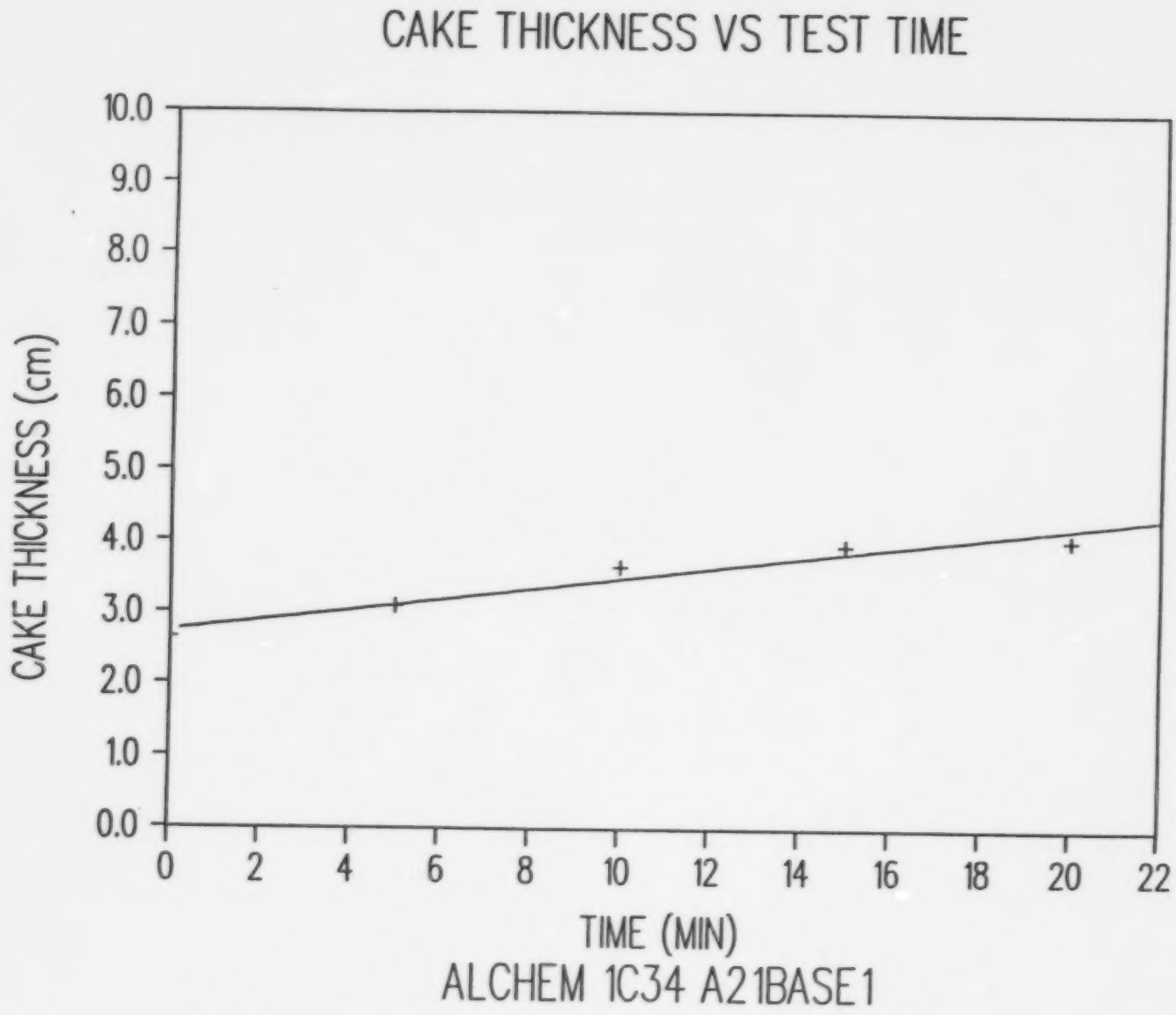

Figure C39 - Cake thickness vs test time at flocculant dosage (0 g/tonne) - Alchem 1C34, A21 Base 1

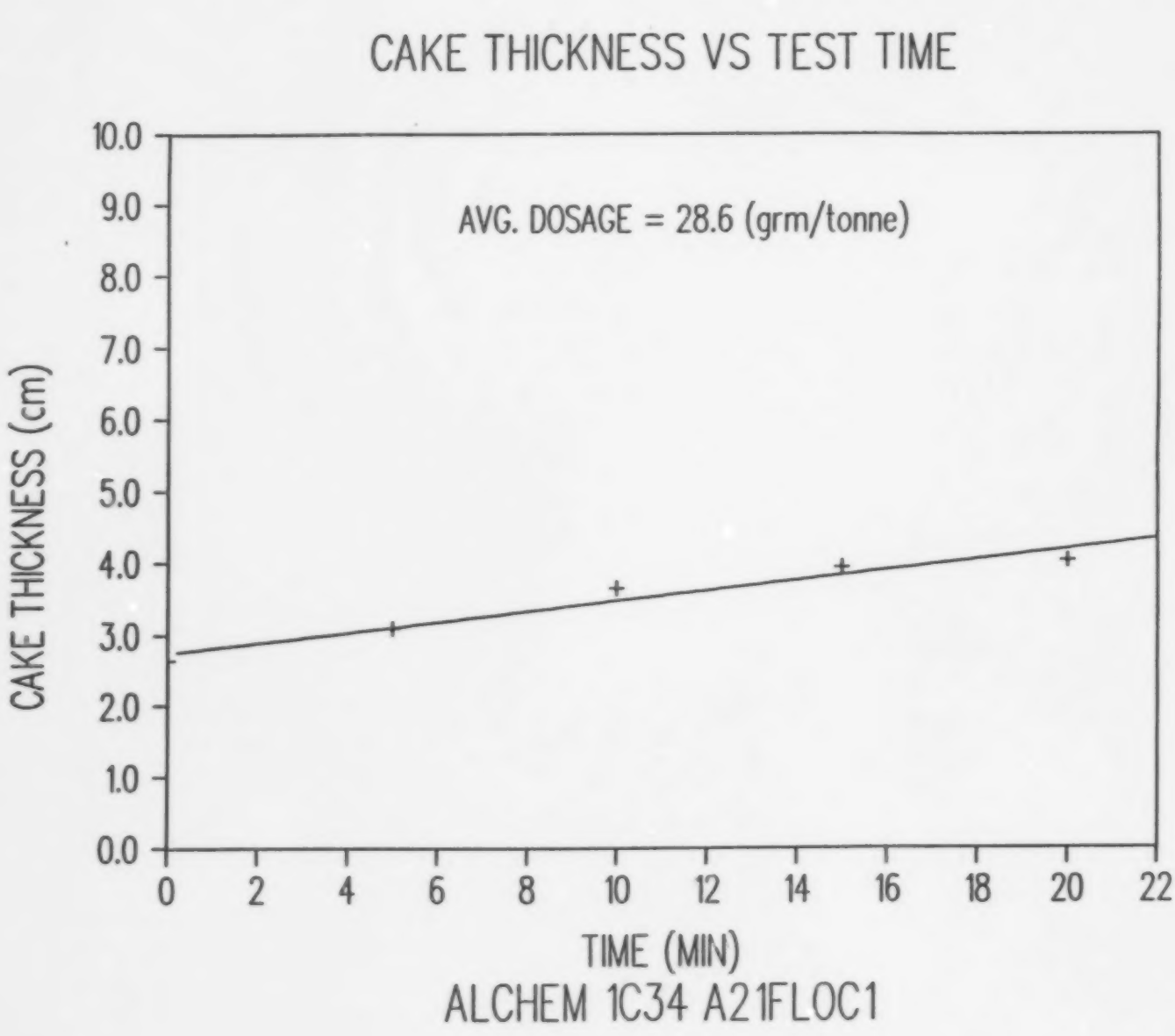

Figure C40 - Cake thickness vs test time at flocculant dosage (28.6 g/tonne) - Alchem 1C34, A21 Floc 1

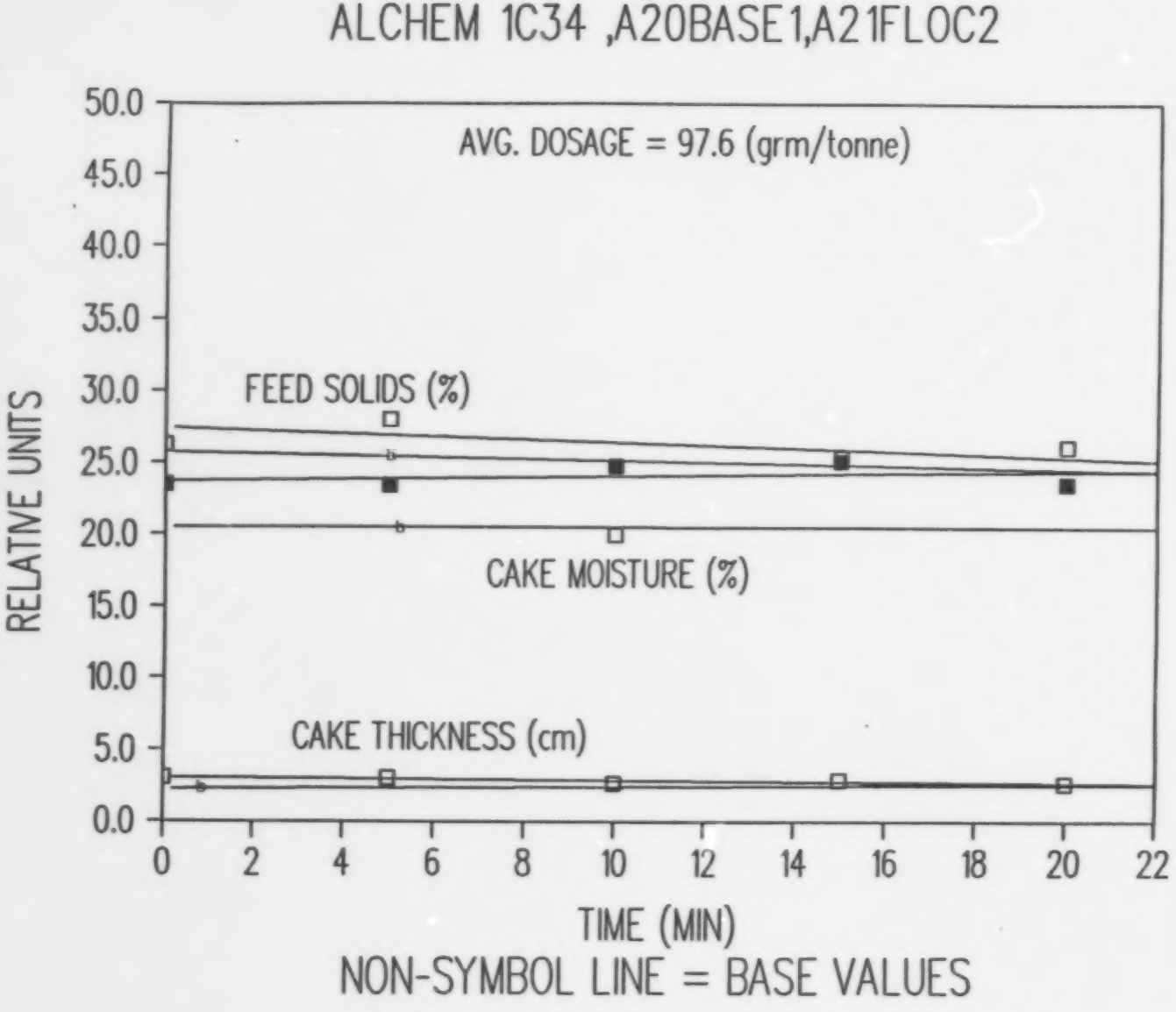

Figure C41 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (97.6 g/tonne) - Alchem 1C34, A20 Base 1, A21 Floc 2

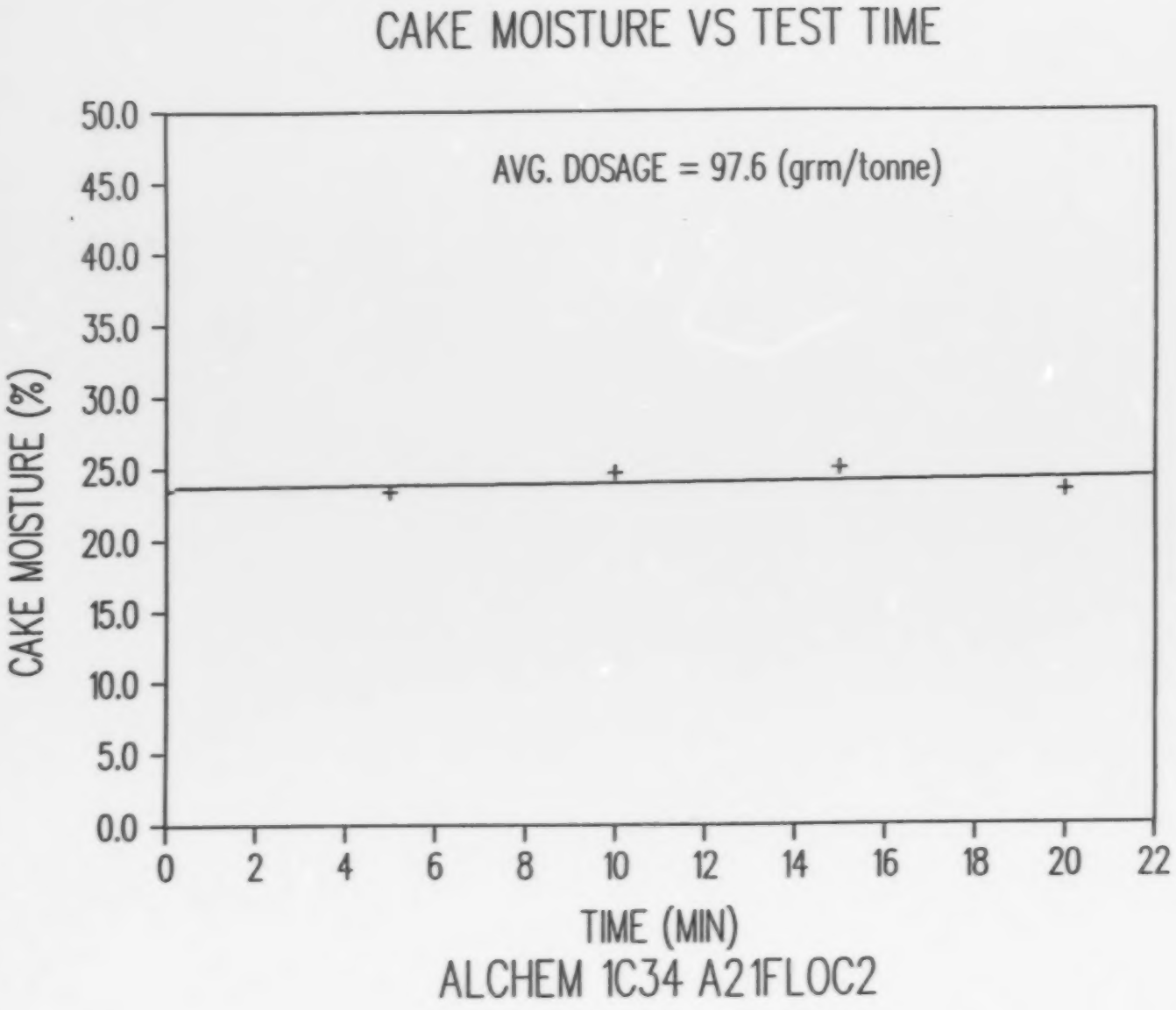

Figure C42 - Cake moisture vs test time at flocculant dosage (97.6 g/tonne) - Alchem 1C34, A21 Floc 2

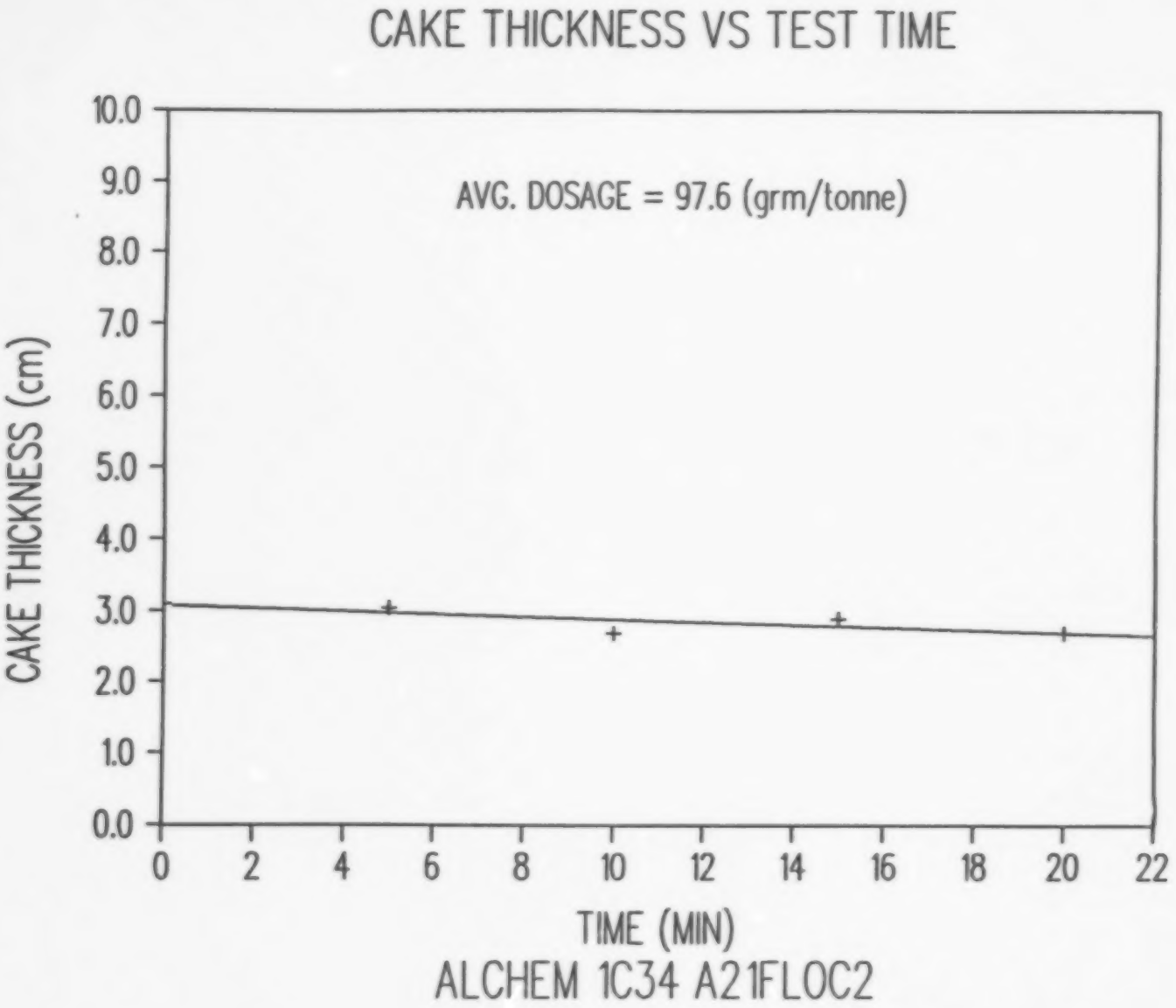

Figure C43 - Cake thickness vs test time at flocculant dosage (97.6 g/tonne) - Alchem 1C34, A21 Floc 2

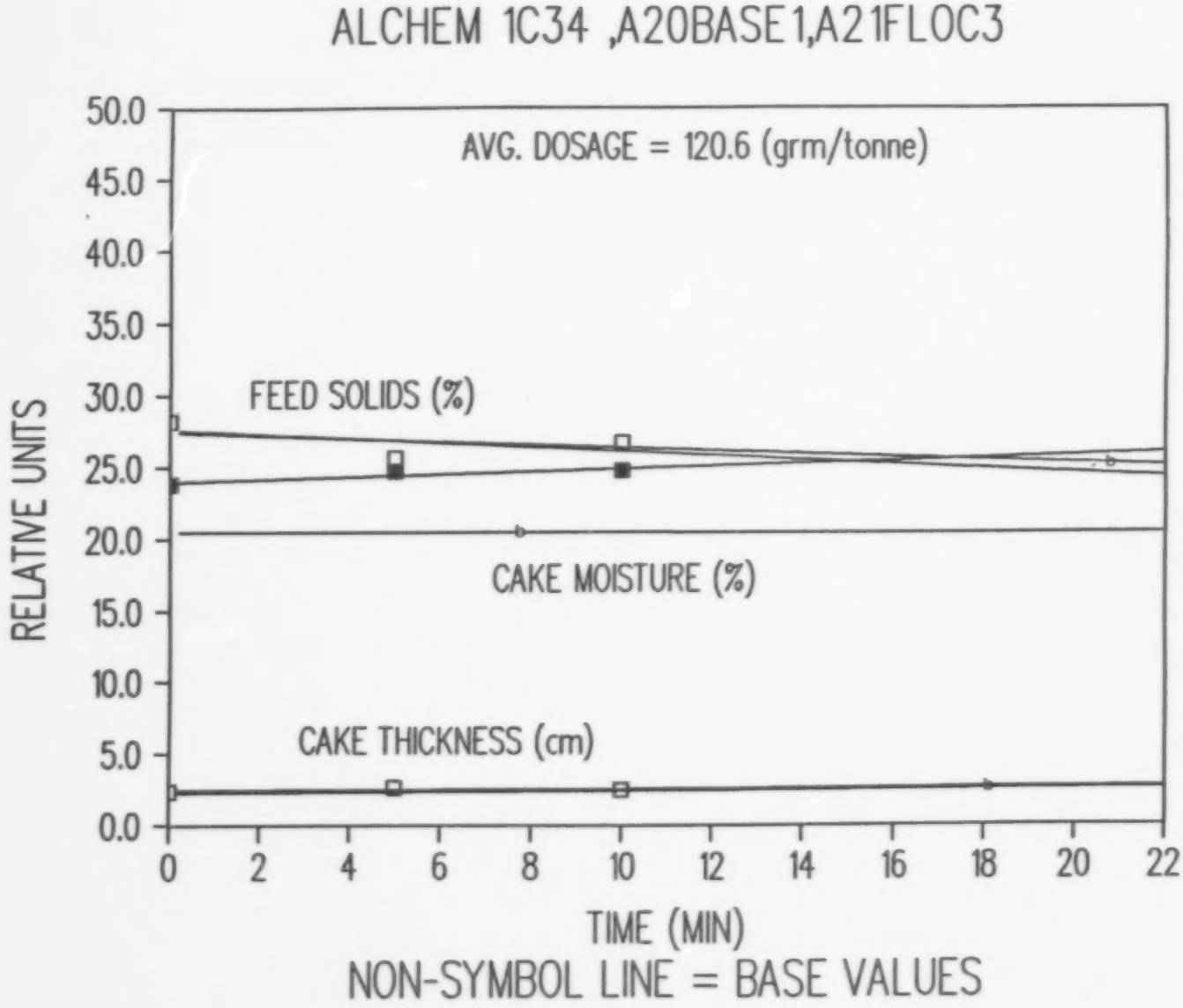

Figure C44- Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (120.6 g/tonne) - Alchem 1C34, A20 Base 1, A21 Floc 3

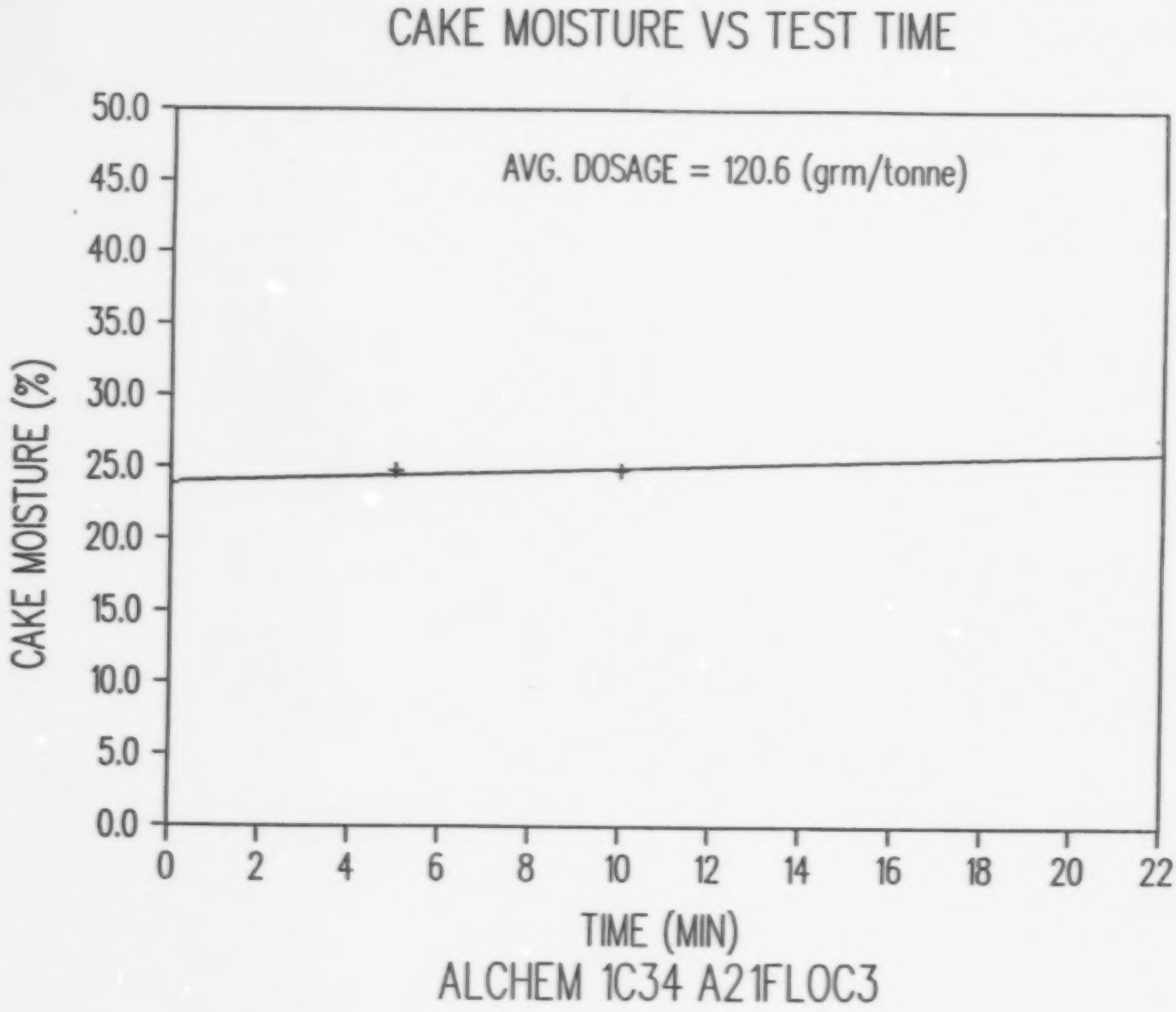

Figure C45 - Cake moisture vs test time at flocculant dosage (120.6 g/tonne) - Alchem 1C34, A21 Floc 3

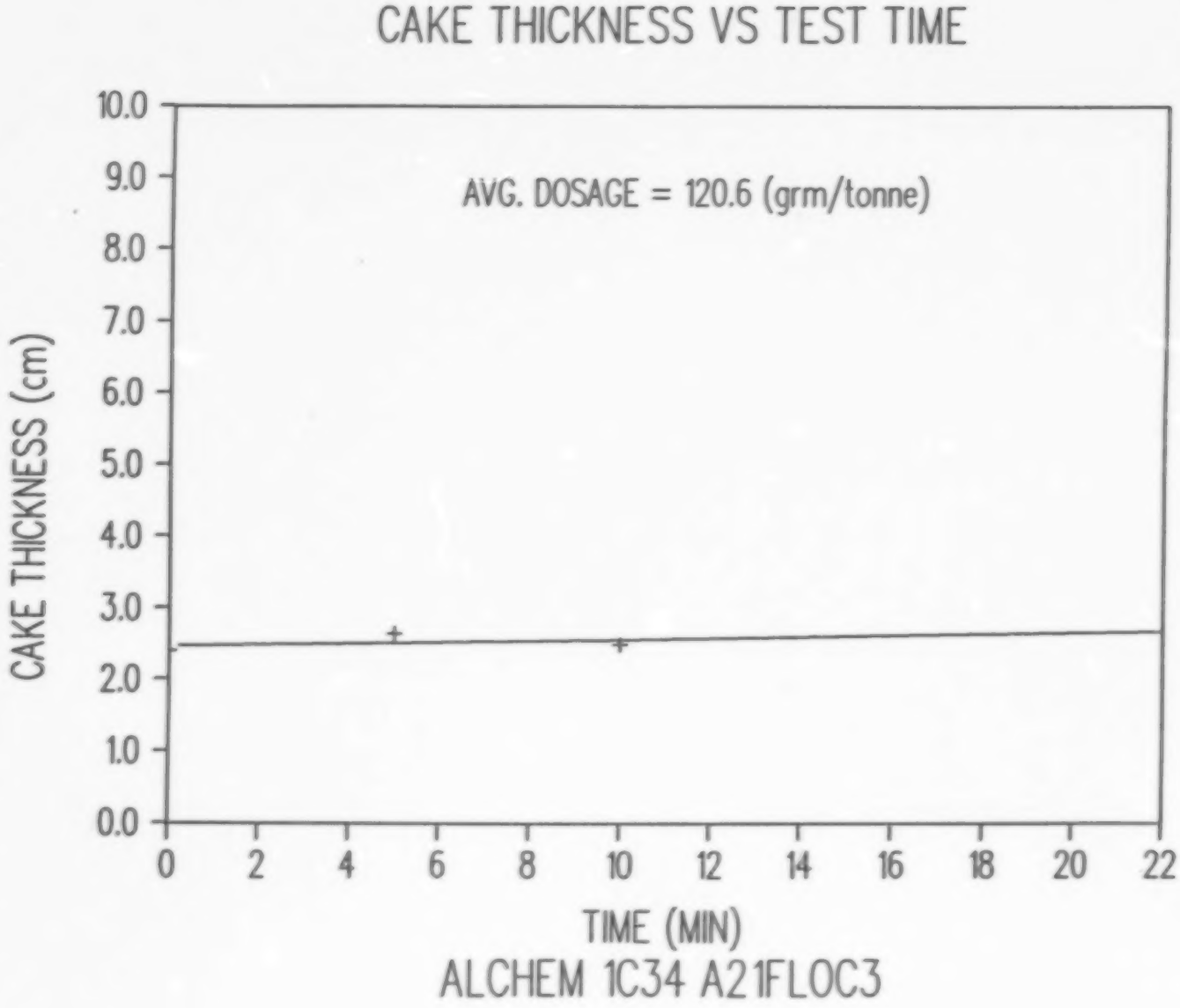

Figure C46 - Cake thickness vs test time at flocculant dosage (120.6 g/tonne) - Alchem 1C34, A21 Floc 3

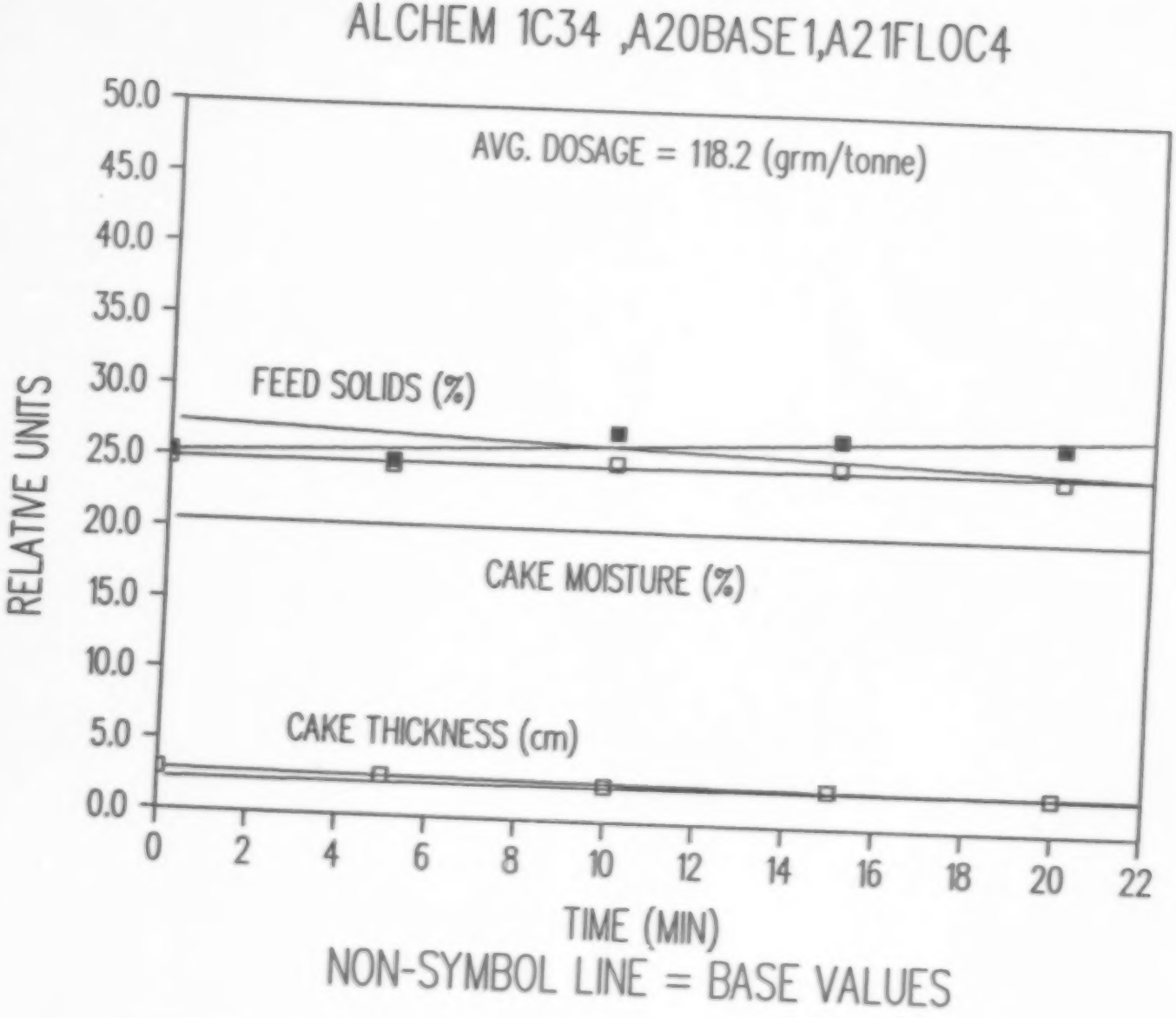

Figure C47 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (118.2 g/tonne) - Alchem 1C34, A20 Base 1, A21 Floc 4

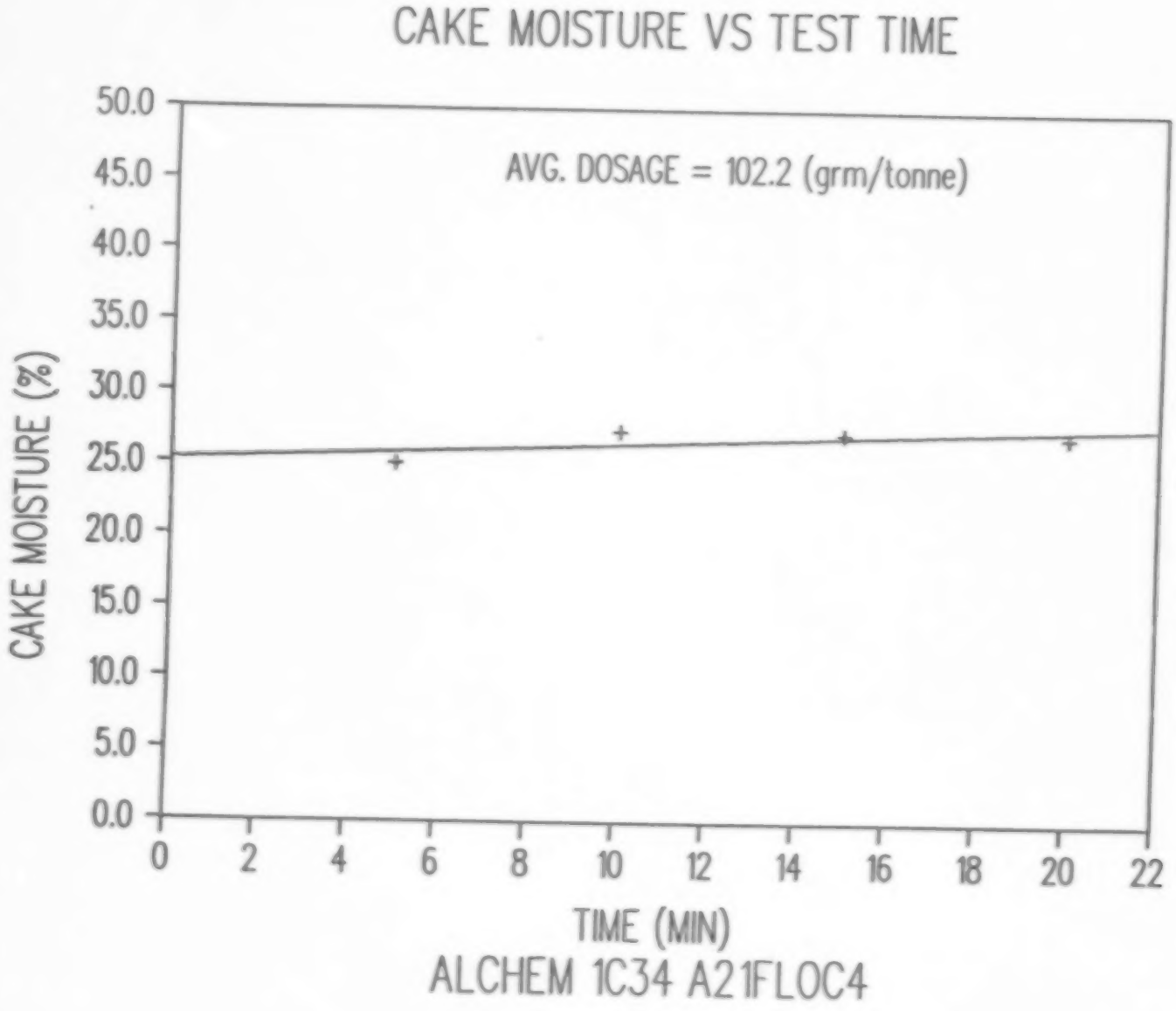

Figure C48 - Cake moisture vs test time at flocculant dosage (102.2 g/tonne) - Alchem 1C34, A21 Floc 4

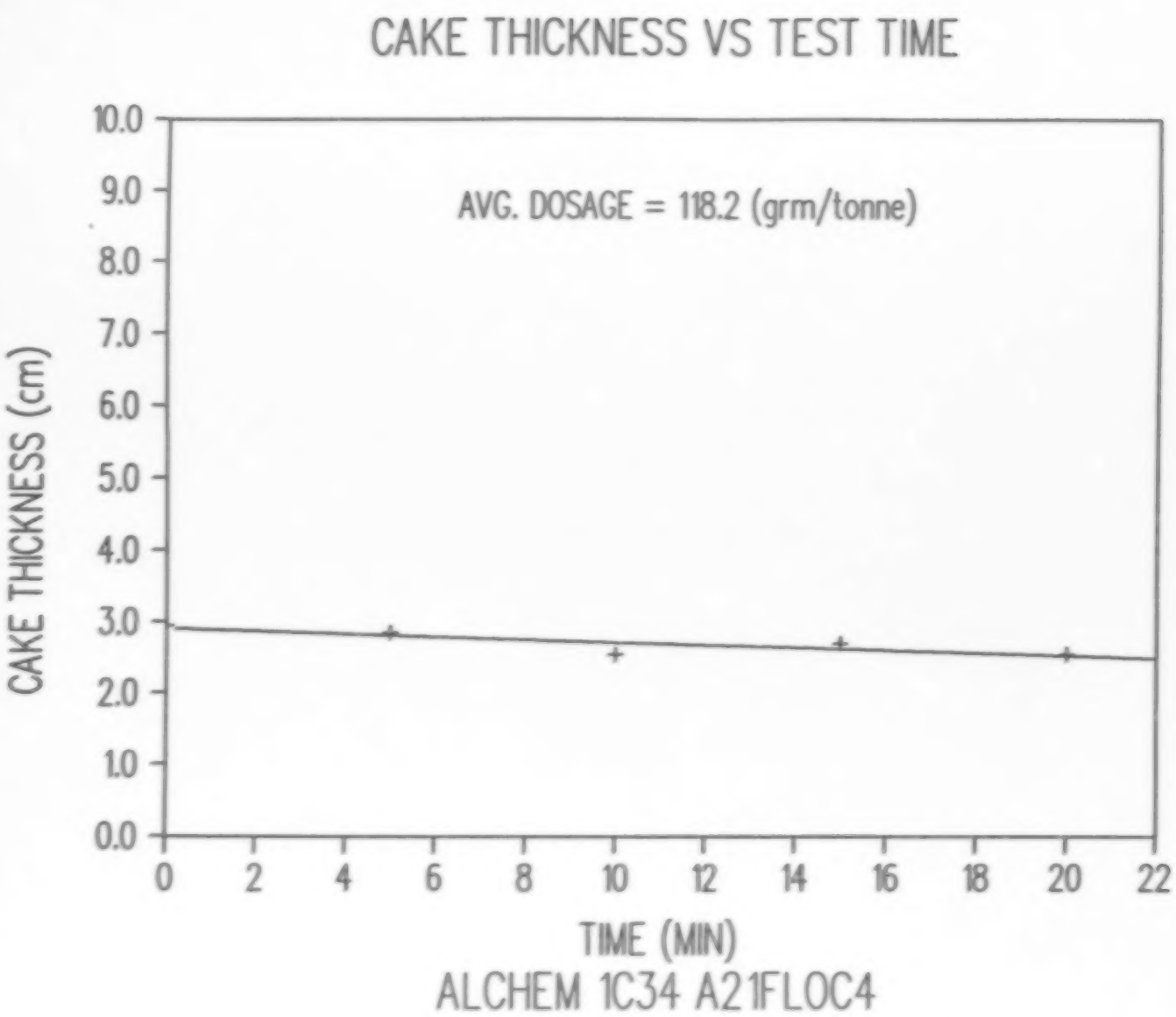

Figure C49 - Cake thickness vs test time at flocculant dosage (118.2 g/tonne) - Alchem 1C34, A21 Floc 4

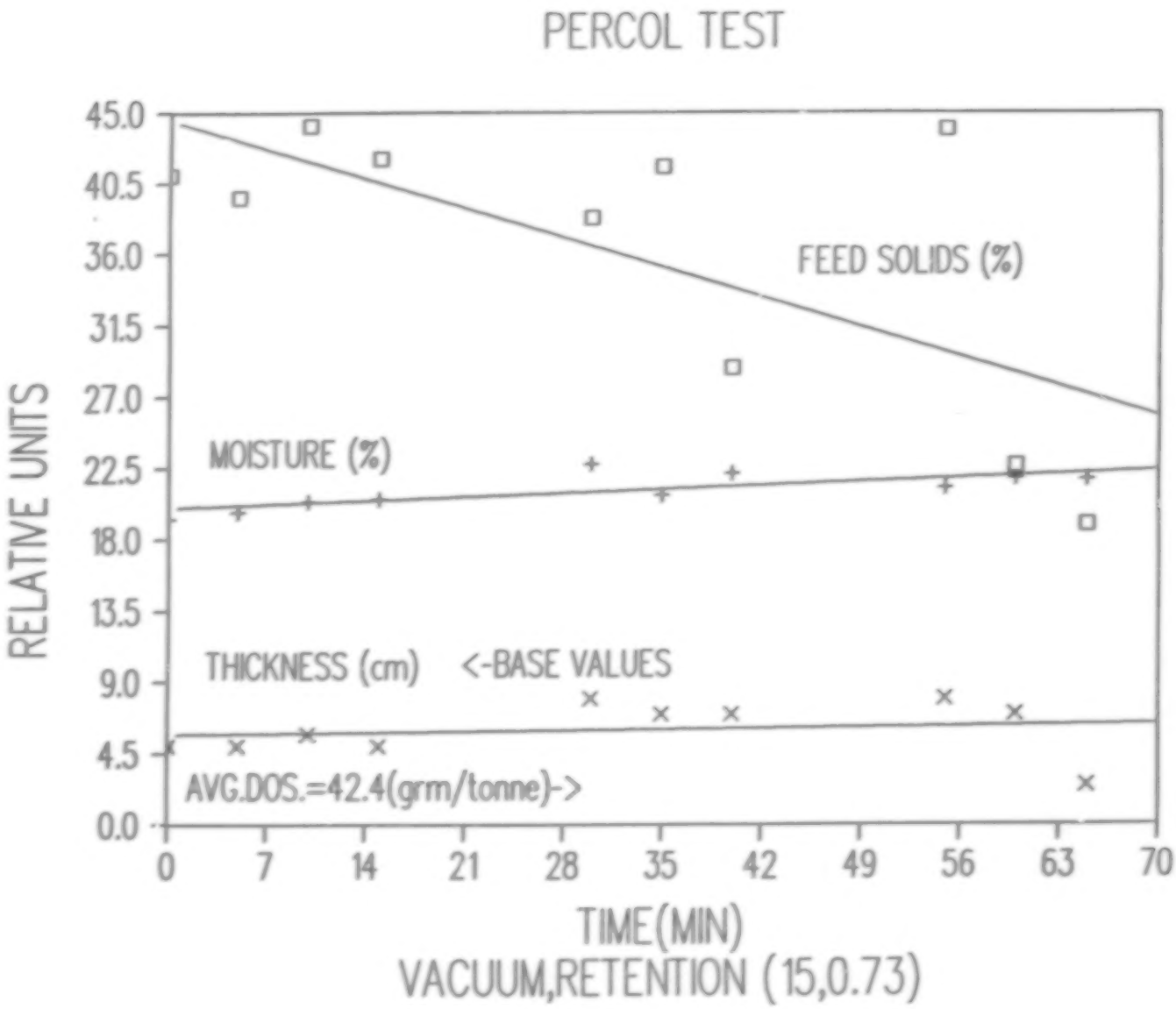

Figure C50 - Feed solids, cake moisture, cake thickness vs test time at flocculant dosage (42.4 g/tonne) - Percol, A24 Base 1, A24 Floc 1 and Floc 2